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New Perspectives in Natural Resources Management ; 1991 Spring Seminar

E. T. Bartlett and R. G. Taylor

1991 Spring Seminar

on

New Perspectives in Natural Resource Management

E. T. Bartlett and R. G. Taylor

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Final Report

Executive Summary

A seminar was held at the College of Forestry and Natural Resources, Colorado State University during the spring of 1991. The purpose of the seminar was to determine the relevant issues with respect to Forest Service management and to examine how New Perspectives in incorporated in Forest Service Management. The seminar was part of the Inter-University Colloquium on New Perspectives, a cooperative venture between the College of Forestry and Natural Resources, the Rocky Mountain Forest and Range Experiment Station, the Rocky Mountain Region, and the New Perspectives Program.

Seventy-one individuals attended one or more seminars, most of whom were students or faculty at Colorado State University. Students attended the seminars, participated in discussion, and wrote a term paper on some aspect of New Perspectives and natural resource management.

Most speakers and students attempted to define New Perspectives. However, a consistent and comprehensive definition for New Perspectives is evolving. The four principles of New Perspectives are sustainability, participation, integration and collaboration.

Several issues concerning New Perspectives and its relation to natural resource management developed from the seminar. These issues need to be addressed in the future if New Perspectives is to make a difference in how natural resources are managed. Included in the issues were public participation, assessment of New Perspectives, sustainability, analytical tools, inventory, biodiversity, research and university curriculum.

The future of the Inter-University Colloquium on New Perspectives will focus on what is needed to adopt the principles and issues associated with the New Perspectives Program. A report will be written in June which will synthesize the results of the seminar with other work and detail future needs. A regional colloquium will be held in Denver; this will focus on the strategies to implement New Perspectives. A seminar will be held in the fall of 1991 to expand on strategy implementation. The results of this effort will reported at the national colloquium on New Perspectives in the spring of 1992.

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INTRODUCTION

A seminar was held at the College of Forestry and Natural Resources, Colorado State University during the spring of 1991. The purpose of the seminar was to provide input to meet the first two objectives of the Inter-University Colloquium on New Perspectives, a cooperative venture between the College of Forestry and Natural Resources, the Rocky Mountain Forest and Range Experiment Station, the Rocky Mountain Region, and the New Perspectives Program. Objectives two and three are:

1) To determine how various groups perceive New Perspectives and what they perceive as the relevant issues with respect to Forest Service management.
2) To examine how New Perspectives is incorporated in current Forest Service management.

The seminar was taught as NR 492, Seminar in Environmental Conservation. Speakers included the Regional Forester, Gary Cargill; director of the Rocky Mountain Forest and Range Experiment Station, Hank Montrey; Jim Lyons, Senior Staff Assistant, House Committee on Agriculture; university faculty, other Forest Service personnel, and members of interest groups (Table 1). The seminar provided a mechanism to educate the university community and others about New Perspectives. The content of the seminar helped provide the basis for the definition of New Perspectives and for recommendations for achieving effective natural resource management in the 1990's and the next century.

Table 1. Seminar schedule for New Perspectives in Natural Resource Management, Spring Semester, 1991.

Date	Topic and Lecturer
Jan 23	Introduction -- Tom Bartlett, Tom Hoekstra; NP-TV Vol. 1
Jan 30	New Perspectives: A video with Hal Salwasser
Feb 6	University Colloquia -- Tom Bartlett, Tom Hoekstra
Feb 13	New Perspectives in Region 2, Forest Service, Gary Cargill, Regional Forester
Feb 20	New Perspectives: A District Ranger's View, Donna Hepp, District Ranger, Redfeather District
Feb 27	Science and New Perspectives, Joe Berry, Department of Forest Sciences
Mar 6	Legislative Impact of New Perspectives, Jim Lyons, Sr. Staff Assistant, House Committee on Agriculture
Mar 13	Spring Break
Mar 20	Social Context of Biodiversity, Kathy Parker, President, The Oriskany Institute
Mar 27	Research and New Perspectives, Hank Montrey, Director, Rocky Mountain Forest and Range Experiment Station
Apr 3	New Perspectives: Global Change and Sustainable Development, Evan Vlachos, Professor of Sociology
Apr 10	Land Management Planning Critique, Linda Joyce, Range Scientist, Rocky Mountain Forest & Range Experiment Station
Apr 17	Analytical Techniques and New Perspectives, John Hof, Economist, Rocky Mountain Forest & Range Experiment Station
Apr 24	A Native American's View, Joe Mitchell, Native American Program Leader, Region 2
May 1	Public Attitudes toward New Perspectives, Joyce Berry, Department of Forest Sciences
May 8	Term Papers Due

PARTICIPATION

Registration for the seminar was open to all students at Colorado State University. Ten students registered for the seminar. Requirements for the students were to attend the seminars, participate in discussion, and to write a term paper on some aspect of New Perspectives and natural resource management. Students were majoring in forestry, natural resources management, wildlife biology, watershed sciences, recreation resources, and agronomy. A mix of undergraduate and graduate students participated in the seminar; some were in the cooperative education program with the Forest Service.

Seventy-one individuals attended one or more seminars, most of whom were students or faculty at Colorado State University (Table 2). Fifteen employees of the Forest Service also participated, with three employees of the Colorado State Forest Service attending a few sessions. Forest Service Employees from outside the Fort Collins area attended seminars in conjunction with attending other meetings, either at the USDA Computer Center or the Rocky Mountain Station. A detailed list of participants and seminars that they attended is given in Appendix A.

Attendance at the seminar was varied. Registered students attended most followed by faculty who were also involved as members of the New Perspectives Steering Committee.

Table 2. Participants in the seminar on New Perspectives in Natural Resource Management (NR 492, Spring 1991).

Organization	Number
Registered students	10
College of Forestry & Natural Resources	9
College of Agriculture	1
Non-registered students attending one or more	31
Faculty	12
Forest Service employees	15
Region 2	4
Region 4	1
Region 5	1
Region 6	2
Rocky Mountain Station	6
Washington Office	1
Colorado State Forest Service	3

DISCUSSION

The discussion topics are taken from the content of the seminars and from the papers that were prepared by the students. The seminar added to the discussion that was continuing within the New Perspectives Steering Committee. A synthesis of the two will be presented in the June 15, 1991 report of this project.

Definition of New Perspectives

A consistent and comprehensive definition for New Perspectives is evolving. A definition that translates into goals and a course of action for the Forest Service has not been recognized.

Within the Forest Service, New Perspectives has been defined as an attitude for multiple-use management of the National Forest System (Cargill)[1]. At the district level, New Perspectives is seen as the spirit of change and new attitude within the Forest Service (Hepp). This attitude of change is defined around four principles: 1) sustainability, 2) participation, 3) integration, and 4) collaboration (Salwasser). The goals for NP are: ecosystem sustainability, biodiversity, landscape aesthetics and long-term productivity.

The misconceptions have evolved concerning what New Perspectives is not (Kessler). Misconceptions include:

1) New Perspectives is 'New Forestry';

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[1]Names refer to seminar speakers (Table 1).

2) New Perspectives means the old way of doing things is wrong;

3) New Perspectives eliminates clearcutting; and

4) New Perspectives is landscape ecology.

Politically, New Perspectives has not been legislated by law, has not been required by Presidential order, has not been designated by Congress as a budget line item, and has not been initiated by environmental groups (Lyons).

External to the Forest Service, a definition of New Perspectives is uncertain because it has not been translated into a set of resource management policies. Instead of a specific definition, there are perceptions associated with New Perspectives. New Perspectives is perceived as a mechanism to emphasize wildlife and recreation over timber. Environmental enhancement, particularly on the context of global issues, is perceived as an integral part of New Perspectives. New Perspectives is seen as the development of partnerships for resource management with private interest groups. In general, New Perspectives is a renewed commitment to responsible land management and resource sustainability (Lyons).

Relevant Issues

Seminar speakers concentrated on different aspects of New Perspectives. The following discussion is an attempt to identify the major components of New Perspectives that were identified in the course of the semester.

Participation. New Perspectives emphasizes participation of the Forest Service with the public. This active involvement provides a "window to the Forest Service". Research into social attitudes shows a trend toward greater valuation, care and awareness about the environment coupled with demands on resources that exceed capabilities. The social and economic view of New Perspectives is that there is a lack of clearly defined objectives that keep pace with change.

The goods and services to be produced from the National Forest System need to be defined and the analytical framework and communication tools enhanced to coordinate resource management. Monitoring is needed to measure progress toward objectives.

The contribution that social measurement can make to New Perspectives is the way to assess, identify, and quantify social values. What people are thinking and value needs to be implemented in Forest Service resource management planning. The problems with social research are that it needs to be long term and that surveys require approval of the Office of Management and Budget. The problem also remains of how the resource manager incorporates surveys of public values into the resource management process. New Perspectives partnerships are being built in areas of cost sharing with other agencies, collaboration with universities and state forests, and in development of rural communities.

Assessment. New Perspectives has been greeted with a great deal of cynicism and skepticism both from within and outside the Forest Service. The agency will need to assess if the program is resulting in real change. Results of the New Perspective program are both internal and external. External results would be a drop in Forest Plan appeals achieved by anticipatory planning and formulation of defensible plans. There will be a shift in budgets, revisions of plans, and lower timber cuts.

Within the Forest Service, there needs to be a clear and understandable means to implement public input into plans with an integration of social and ecosystem considerations. The Forest Service will have to develop the research and technical skills to implement integrated resource management. A new generation of leadership and training for New Perspectives is needed.

New Perspectives originates from internal controversy from Forest Service and former Forest Service employees. The dissatisfaction is in the lack of ability of the Forest Service to affect management on the ground with sound ecosystem management. Thus, as well as assessing external successes, New Perspectives should provide an examination of employee moral and job satisfaction.

Sustainability. Ecosystem sustainability implies multiple dimensions. Sustainability is relevant with respect to biodiversity, nondeclining yields, multiple use, ecosystems and individual species. Sustainability is perceived in terms of

social values. In any functional definition, consideration of ecological dynamics is essential. What people see and perceive as a desired system to sustain, may in fact be very temporary in the long term without intensive management. Further, until sustainability can be defined, monitoring is impossible.

Analytical Tools. As the shift from commodity resources to amenity resources occurs, there is a misconception that this means a decrease in importance and use of quantitative analysis. New Perspectives will require a reassessment, not an abandonment of quantitative analyses. The improvement in analytical procedures will have to made in the valuation of economic and biological resources. The question then arises as to the choice of a social, economic or biological objective function. Risk in quantitative analysis is going to have to be addressed for analytical results to be feasible. Scale also has been ignored in previous planning analysis, and the issues will have to addressed to apply plans at the watershed level as well as at higher levels.

Inventory. Inadequate inventories of resources were identified as the most limiting constraint in the resource management process. With the exception of some classes of timber inventories, resource inventories have not been kept current. Integrated management cannot occur with existing inventories and as a result most resource analysis was conducted outside of an

integrated approach in the last planning process. As New Perspectives moves beyond single-resource management to ecosystem management, this shortcoming will be increasingly critical.

Biodiversity. Biodiversity is defined as the variety and variability among living organisms and the ecological complexes in which they occur (Parker). The loss of diversity means species, genetic, and ecosystem loss. A functional definition of biodiversity has not yet been established. A definition has been hampered by the lack of ability to measure biodiversity concepts, the value judgements of key species, and the stochastic nature of ecosystems. Further, definitions of diversity may conflict with present planning goals.

Research. New Perspectives is the integration of research tasks with Forest Service goals. New Perspectives is a directive for the focusing, packaging and communication of research programs to the customers in the Forest Service and outside. New Perspectives facilitates the movement away from functional research toward integrated research across resource specialties and between technical sciences and social sciences.

University Curriculum. New Perspectives emphasizes a combination of the social/economic and the biological/physical aspects of natural resource management. The consensus throughout the seminar was that social problems were more pressing,

complicated and intractable than the biological counterparts. Many speakers implied that biodiversity and sustainability were understood. Seminar speakers called for increased training in the social sciences from theology to anthropology. Countering those appeals were the integration and problem solving skills mentioned in the management, research and applications aspects of New Perspectives. As Hof said it is a mistake to believe New Perspectives calls for less quantitative skills. New Perspectives calls for University curriculum to integrate social and biological sciences within a problem solving context.

Student Papers

Students in the course were aware, experienced and educated in natural resource management and by their attendance showed dedication to further education in natural resource management. The foremost problem that students struggled with in their papers was a definition of New Perspectives. Each speaker in the seminar espoused or emphasized differing views of New Perspectives; student papers reflected the same. While some students used a particular speakers definition, two universal themes evolved.

First was public participation, conflict resolution or responding to changing desires and wants of the public in natural resource management. This theme is mentioned first because social or economic dimensions of natural resource management received greater attention than biological or physical

dimensions. The overview of the social/economic was of a far more difficult and pressing problem than the biological aspects of New Perspectives. Suggestions of the students included enhanced course work, and programs for public participation as the principal emphasis of New Perspectives.

The second theme was ecosystem sustainability. While this keyword emerged in most of the papers, a rigorous definition was not offered. Instead, students relied on buzz words such as diversity, Old Growth, reduced timber cut, "managing for what has been left behind," and landscape ecology as synonyms for sustainability. Again, this reflected the corresponding lack of consistent and shared definition by the seminar speakers. Sustainability became an umbrella statement for the students to express environmental goals of New Perspectives, everything from a national waste management policy (Nimmo) to international agricultural development (Jones).

Reflecting the uncertainty of the definition of New Perspectives was an even greater uncertainty of the implementation of New Perspectives in the Forest Service. Student attitudes cited the optimism of Regional Forester Gary Cargill of New Perspectives as attitude change that is happening now within the Forest Service. This was further reinforced by the lists of New Perspective programs now being undertaken by Donna Hepp in the local Redfeather Ranger District. However, the realism resulting from their Forest Service employment experience says "... New Perspectives needs to be an aggressive course of

action, not just a way of thinking. Additional principles need to be added, and these principles must be made up of well defined objectives" (Anderson).

The conclusions that the students reached emphasized the social/economic over the biological/physical:

1. "... demonstrate true substance in terms of developing a partnership with the public" (Burke);
2. "Rewards need to be given for ingenuity and demonstrated integrity for professional land management" (Anderson);
3. "By applying the principles of sustainability, participation, integration, collaboration, the Forest Service will have the tools it needs to move forward towards wiser management of our nations's resources" (Bachman);
4. "Appreciating and incorporating traditional and new standards, employing personnel trained in a variety of disciplines, as well as adopting a cross-disciplinary approach to research, offers a fresh way of problem identification and ultimately problem resolution in the Forest Service" (Tarrant);
5. "Banning imports of timber from countries that do not practice sound silviculture" (Moore).

The Future

Success of New Perspectives lies in translating "the new way of thinking" into courses of action. To assist in this effort, the University needs to examine itself in terms of integration

and increasing emphasis on the social dimension of natural resource management. Courses, research, and extension need to be geared toward problem solving of integrated biological and social problems. The Spring 1991 seminar was a step in this direction. This seminar provided an education to students as well as faculty on New Perspectives of natural resource management.

The University can provide the neutral ground where New Perspectives ideas can be discussed, critically reviewed, and courses of action charted. This is the key to the summer Colloquium and the reason that the colloquium is based around a workshop format. The format of the Colloquium is designed to stimulate new ideas, to inform and challenge the participants with the future of natural resource management. The second component of the colloquium is a workshop format that provides a framework that allows the development of strategies of action for New Perspectives.

The strategies of action will be the key to the Fall seminar on New Perspectives. Students will be required to integrate the previous Seminar and Colloquium information into papers that provide strategies of implementing natural resource management in the future.

Green, Kate	USFS-R5			X						X	X		X		X		
Gross, Howard	ER		X														
Halbert, Matthew	NRM					X											
Hepp, Donna	USFS-R2				X	X	X	X	X				X		X		
Hoefer, Phil	CSFS								X								
Hoekstra, Tom	USFS-RM		X		X		X		X	X	X	X				X	
Horn, Blaine	RS	F				X											
Hubbard, Jim	CSFS					X			X		X						
Hughes, Jay	CFNR	F				X											
Ihori, Tamiko	FS		X														
Jodie, Elvis	Agron	XG		X	X	X	X		X		X				X	X	
Jones, Jeff	ER-FS	X	X	X	X	X	X	X	X	X	X	X	X		X	X	
Joyce, Linda	USFS-RM					X	X		X	X						X	
Kalish, Elizabeth	FS		X														
Krueger, Jeri	F&WB			X													
Leininger, Wayne	RS	F	X			X											
Madril, Alan	RS											X					
Matsumohji, Audrey	USFS-R6						X										
McInerney, Tracey	NRM			X	X		X			X							
McNulty-Huffman, Dan	RS												X				
Ming, Laurie Lee	FS		X														
Moore, Jeff	NRM	X	X		X	X	X	X	X	X	X	X	X	X		X	
Newberry, Denise	FS	XG	X	X	X	X	X	X	X	X	X	X	X	X	X		
Nimmo, Jeff	ER	X		X	X		X	X	X	X	X	X		X	X		
O'Connel, Denis	FS														X		
Orntein, David	NRM															X	
Painton, Carolyn	FS		X	X	X	X	X		X	X	X	X					

NR 492 New Perspectives Seminar, Spring, 1991																	
Name	Dept. or Organization	Credit	Week														
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Anderson, Jill	F&WB	X		X	X	X	X	X	X	X	X	X	X		X	X	
Anderson, Thad	FS														X		
Arteman, Douglas	RS			X		X						X					
Bachmann, Steve	ER	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Baker, Beverly	F&WB										X						
Barry, Patsy	RS		X														
Bargsten, Monica	RS		X														
Bartlett, Tom	RS	F	X	X	X	X	X		X	X	X	X	X	X		X	
Berry, Joe	FS	F														X	
Berry, Joyce	FS	F				X			X	X		X		X		X	
Bevers, Mike	USFS-RM					X											
Billig, Paul	RS		X														
Brinton, Sara	FS		X	X													
Burke, Jan	FS	X			X	X	X			X		X	X			X	
Calerich, Chris	AS		X														
Chew, Matt	RS											X					
Coughenour, Mike	NREL						X				X		X		X		
Curry, Kori	RS														X		
Dana, Bob	USFS-RM					X											
Eckert, Gary	USFS-R4					X											
Friedlander, Joan	USFS-R2					X											
Geils, Brian W.	USFS-RM					X											
Goetz, Harold	RS	F		X													

NR 492 New Perspectives Seminar, Spring, 1991

Name	Dept. or Organization	Credit	Week														
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Anderson, Jill	F&WB	X		X	X	X	X	X	X	X	X	X	X		X	X	
Anderson, Thad	FS														X		
Artemen, Douglas	RS			X		X						X					
Bachmann, Steve	ER	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Baker, Beverly	F&WB										X						
Barry, Patsy	RS		X														
Bargsten, Monica	RS		X														
Bartlett, Tom	RS	F	X	X	X	X	X		X	X	X	X	X	X		X	
Berry, Joe	FS	F														X	
Berry, Joyce	FS	F				X			X	X		X		X		X	
Bevers, Mike	USFS-RM					X											
Billig, Paul	RS		X														
Brinton, Sara	FS		X	X													
Burke, Jan	FS	X			X	X	X			X		X	X			X	
Calerich, Chris	AS		X														
Chew, Matt	RS											X					
Coughenour, Mike	NREL						X				X		X		X		
Curry, Kori	RS														X		
Dana, Bob	USFS-RM					X											
Eckert, Gary	USFS-R4					X											
Friedlander, Joan	USFS-R2					X											
Geils, Brian W.	USFS-RM					X											
Goetz, Harold	RS	F		X													

APPENDIX B

Seminar Summaries

Date: January 30, 1991

Title: New Perspectives Video

Speaker: Hal Salwasser, Director of New Perspectives Program, USFS, Washington DC

The "Basic Principles" of New Perspectives are: (1) **sustainability** of ecosystems, (2) **participation** of the broad spectrum of users and interested parties, (3) **integration** of spatial and temporal aspects of ecosystems, (4) **collaboration** between scientists, educators, and managers. New Perspectives in resource management is sustaining ecosystem capabilities while considering uses and values that can be obtained. In contrast, the previous philosophy viewed resource management as obtaining the commodities after which mitigation was undertaken on the affected environment. Barriers to New Perspective exist within the Forest Service, but employees on the ground (National Forests, Ranger Districts) work with the New Perspective principles in routine daily work. New Perspectives offers an adaptive approach to ecosystem management, with alternatives to traditional strategies.

Date: February 6, 1991

Title: University Colloquia on New Perspectives

Speakers: E. T. Bartlett, Department of Range Science, Colorado State University, and Tom Hoekstra, Rocky Mountain Forest and Range Experiment Station.

Some misconceptions about New Perspectives include: 1) New Perspectives is New Forestry; 2) New Perspectives means that the old way of doing things is wrong; 3) New Perspectives means no clearcutting; and 4) New Perspectives is landscape ecology. Goals for New Perspectives are: 1) ecosystem sustainability, 2) biodiversity, 3) landscape aesthetics, and 4) long-term productivity.

The goals of the colloquia are:

1) to provide an open discussion between academic, Forest Service managers, and others;

2) to define New Perspectives in a social and environmental context;

3) to rethink management of forests; and

4) to provide an environment for development of natural resource strategies in management, education, extension, and research.

The social and economic view of New Perspectives is that there is a lack of clearly defined objectives that keep pace with change. The demands on resources are exceeding capabilities. In this regard we need to define the goods and services to be produced from National Forests and Grasslands, and enhance the analytical framework and communication tools to coordinate resource management. Monitoring is needed to measure progress toward objectives. The ecological basis of New Perspectives is the ecosystem.

Date: February 13, 1991

Title: New Perspectives in Region 2

Speaker: Gary Cargill, Regional Forester, Rocky Mountain Region

New Perspectives is an attitude on how to manage the National Forest System in the future. Multiple use of the National Forest System is the bedrock of New Perspectives. The principles of New Perspectives are sustainability, participation, integration, and collaboration (partnership). Biodiversity must be sustainable. Managers must listen and act responsible to public concerns. People who are affected by decisions will be actively involved; this involvement provides a "window to the Forest Service". Integration must occur in all resource management, and data systems, management systems, and decision making must be integrated. New Perspective partnerships are being built in areas of cost sharing with other organizations, collaboration with universities and state forests, and in development of rural communities. New Perspectives is a fresh look at old ideas.

Date: February 20, 1991

Title: New Perspectives: A District Rangers View

Speaker: Donna Hepp, District Ranger, Redfeather District, Arapaho-Roosevelt National Forest

The Redfeather District is a wildlife, recreation and watershed district, and management challenges focus on these values. The primary challenge is ecosystem stewardship at an urban interface with recreation management, roadless and wilderness areas, and timber management. Specific New

Perspective projects are concerned with old growth forests, riparian habitat, off-road vehicles and timber management. The participation program of the District focuses on public work groups, hearings, a Forest Service Planning advisory group, and cost sharing programs.

In the past, lack of accomplishment has been the principal cause of employee burnout. New Perspectives "allows employees to accomplish things". New Perspectives is the spirit of change and a new attitude from within the Forest Service. New Perspectives allows the District to discern what the public wants and make the public understand the constraints and choices. In this regard, New Perspectives is an environment for shared decisions with Forest Service employees and the public.

Date: February 27, 1991

Title: Geographic Information Systems (GIS) and New Perspectives

Speaker: Joe Berry, Department of Forest Sciences, Colorado State University

Maps are abstractions of reality but can not provide the analytics from description to prescription that are part of the decision making process. GIS allows mapping, updating maps, use of spatial database management and modeling with statistical and mathematical functions. Social, ecological, professional, and legal information can be integrated within GIS. In this integration process, conflict searches can be made and tradeoffs shown.

Date: March 6, 1991

Title: Legislative Impact of New Perspectives

Speaker: Jim Lyons, Senior Staff Assistant, House Committee on Agriculture, Washington DC

The definition of New Perspectives is unknown and this uncertainty rests with the Forest Service. From a political standpoint we can tell what New Perspectives isn't: (1) there are no statutes requiring New Perspectives, (2) there are no Presidential orders nor Congressional budget items requiring New Perspectives, and (3) New Perspectives was not initiated by environmental groups. However, the New Perspectives Program has received blessing from the Secretary of Agriculture.

New Perspectives revolves around several themes that have political ramifications. The first is the emphasis on wildlife and recreation over timber. Second is enhancing the environment,

within the context of global research issues. The last theme is developing a partnership with the public.

New Perspectives originates from internal controversy between the Forest Service and former employees. Indicators of a real New Perspective Program are both internal and external. External indicators would be a drop in the appeals on Forest Plans, a shift in budgets, revisions of plans and lower timber cuts. Within the Forest Service, there needs to be a clear and understandable means to implement public input into plans with an integration of social and ecosystem concerns. The Forest Service will need to develop the research and technical skills to implement integrated resource management. A new generation of leadership and training is needed.

Date: March 20, 1991

Title: Social Context of Biodiversity

Speaker: Kathy Parker, President, The Oriskany Institute, Washington DC

Biodiversity is defined as the variety and variability among living organisms and the ecological complexes in which they occur. The loss of diversity means species, genetic, and ecosystem losses. The human dimensions of biodiversity are based upon the assumptions that most 'real' natural resource managers are herders, farmers, timber cutters, and fishermen. Areas of human dimension of biodiversity included: holders of meanings, myths and symbols, agents and victims of destruction, agents of conservation, and gender uses of biodiversity.

The contribution of education in the understanding of the human dimensions of biodiversity is that it should overcome disciplinary tribalism (social sciences should be integrated with forestry), it should teach creative destruction, and it should prioritize the urgent versus the important. We need to find a balance of our vision of where we want to go and what we have to get there with.

Date: March 27, 1991

Title: Research and New Perspectives

Speaker: Hank Montrey, Director, Rocky Mountain Forest and Range Experiment Station

The origin of New Perspectives is that land managers are caught in the crossfire as to how public lands should be managed. This crossfire arises because 1) the National Forests are a great

source of wealth, 2) the Forest Service has been captured by special interest groups, 3) the profession is guilty of technical arrogance, and 4) natural resource professionals are not clear of "what business they are in".

The new challenge in the Forest Service is to find the common ground for a broader approach. In this regard, New Perspectives needs to blend three models of forestry: tree crop forestry, multiple benefits forestry, and preservation forestry. Further, New Perspectives has a communication function in the blending of the three models in the management of lands. New Perspectives is a change in the value system from multiple use to land stewardship.

In regard to the researcher, New Perspectives is the integration of research jobs into Forest Service goals. It is a directive for packaging and communicating research programs to customers in the Forest Service and outside. New Perspective facilitates moving from functional research toward integration. The role for the researcher is an integration of technical sciences with social sciences.

Date: April 3, 1991

Title: New Perspectives: Global Change and Sustainable Development

Speaker: Evan Vlachos, Department of Sociology, Colorado State University

New Perspectives stems from the Resources Planning Act in the early 1980's and is a result of external pressures in the context of global change and sustainability. Planning should be anticipatory and look to the future and will be participatory, inviting more interest groups. Planning will have future options and must assess assumable risk. Thus, New Perspectives planning forces an organization to be leaner, more efficient, flexible, and responsive.

Internally, the Forest Service will share a common vision and work together with a shared leadership. Externally, the Forest Service will deal with alternative viewpoints, multiple values, sustainable ecosystems, biological diversity, and landscape ecology. The Forest Service will no longer manage natural resources but rather human resources.

Changes will occur in values through cultural and institutional change, morphological traits (population, technological and biological), and exogenous changes through climate shifts and increasing world interdependence. Solutions to change are going to be more complex, with greater

interdependence and with greater vulnerability, which calls for risk management to avoid crisis.

Sustainable development is development that meets present needs without compromising the future. There will be greater equity in solutions with sustainable development in harmony with constraints.

The challenge facing New Perspectives is the integration of the legal mandate, professional standards and public desires. To meet this challenge, the Forest Service is going to need: 1) decision support systems which combine data and judgement; 2) organizational mobilization in solving problems; and 3) contingency planning. In conclusion, it is better to be approximately right than precisely wrong and function in a democracy of restrictions versus a tyranny of constraints.

Date: April 10, 1991

Title: Land Management Planning Critique

Speaker: Linda Joyce, Range Scientist, Rocky Mountain Forest and Range Experiment Station

The objectives of this discussion were to: 1) provide a critique of land management planning, 2) examine the shortcomings of land management planning in terms of the life cycle of scientific ideas, and (3) provide a "New Perspective" on the integration of research and planning in resource management. The focus the critique of land management planning was on the derivation of coefficients for the linear program (FORPLAN). It was found that inadequate inventory of resources and models for estimating uses were the most limiting constraints in the derivation of coefficients. The notable exceptions were in areas such as timber management. This lack of confidence in the ability to predict forced most analysis to be done outside of FORPLAN.

The integration of research and land management planning was critiqued in terms of the evolution of scientific ideas as applied to the case of history of the theory of ecological climax and the classification of range condition. The integration of research into planning is now being done using the spatial context of species use. Examples were given, and recommendations for increased emphasis on community and landscape ecology were made.

Date: April 17, 1991

Title: Analytical Techniques and New Perspectives

Speaker: John Hof, Economist, Rocky Mountain Forest and Range Experiment Station

New Perspectives, as a course of action and management for the Forest Service, is the de-emphasis of timber production, with an increased emphasis on ecosystem condition and sensitivity to public desires. In shifting the emphasis, there is potential for several logical errors: (1) that the de-emphasis of timber implies a shift away from efficiency; and (2) that the emphasis on meeting public desires means less quantitative analysis. New Perspectives requires a reassessment, not abandonment of quantitative analyses to meet goals.

The analytic problems facing New Perspectives address the problem of "how the forest looks versus what the outputs should be". Analytical problems revolve around several issues. The allocation of costs and resources between timber and environmental may be difficult to solve. The second issue is the valuation of goods and services. Valuation reduces to a choice of the objective functions, economic or biological. If the objective function is biodiversity, the question remains of how to define biodiversity and how to optimize it. The third issue is of nondeclining timber yield. The old perspective is of nondeclining output, while the new perspective is shifting to ecosystem nondegradtion or temporal equity. The last set of issues revolve around the failure of the last round of Forest Plans. The last planning effort did not implement spatial considerations nor consider risk and uncertainty.

Date: April 24,1991

Title: A Native American's View of New Perspectives

Speaker: Joe Mitchell, Native American Program Leader, Region 2

Various definitions have surfaced for New Perspectives and include: a state of mind, a new methodology, a new philosophy, a different decision-making approach, a holistic perspective, a re-emphasis on public values, an image change and involvement of educators, scientists, managers and the public. New Perspectives is "what the Forest Service was supposed to do all along, caring for the land and serving the people."

New Perspectives also includes introspection of the Forest Service in internal equity with regards to the composition of the work force. There has been a slow integration of minorities, particularly Native Americans, into the Forest Service. The

Forest Service should maker greater efforts to involve Native Americans in the stewardship and management of National Forests and Grasslands.

Date: May 1, 1991

Title: Public Attitudes Toward New Perspectives

Speaker: Joyce Berry, Department of Forest Sciences, Colorado State University

The contributions that social measurement can make in natural resource management are to assess, identify, and quantify social values. Social research needs to be long term. The research on social attitudes shows a trend toward greater valuation, care and awareness about the environment. Within that general trend, the dominant concern is for air and environmental quality versus resource management issues. Further, local versus global issues dominate. Within groups of people who are concerned about resource management, results have shown that commodity groups are concerned with the outputs of the forest, whereas broader groups are more concerned about the process of allocation and management of resources. However, individual group values may not reflect general public wants or values that can only be assessed through random surveys. The problem remains of how the resource manager can incorporate surveys of public values into the resource management process.

AN OPINION ON NEW PERSPECTIVES

by Jill Anderson
27 April, 1991

AN OPINION ON NEW PERSPECTIVES

I would like to begin by asserting my position on New Perspectives (NP). It is more than "a new way of thinking", which is the common definition of New Perspectives. It should be defined "a new way of thinking with an aggressive course of action". I stress the course of action because "a new way of thinking" allows the US Forest Service to be passive and leave necessary changes lost in thought rather than action.

By emphasizing a "course of action" the Forest Service will be accountable for the program's failure and will therefore work harder to make the program a success. If the program continues to be a thought process, there is no way to know when "success" or failure of the program is achieved. How convenient. The inability to define success allows the Forest Service to never fail.

The following is a critical look at NP and recommendations for changes and additions in the program.

Currently, NP is based on four principles: Sustainability; Participation; Integration; and Collaboration. Although pertinent, these are incomplete and could easily end up as government jargon with empty meaning. These will have empty meaning unless clearly-written-well-defined objectives are established. These are incomplete because two necessary principles are left out. These include: 1) Public Relations and 2) Shifting of the Power Figures.

This first is important and needs to stand alone as its own principle because it is seldom addressed yet critical and essential to the Forest Service's Mission. This, unlike the Participation Principle, recognizes the need for communication outside the agency.

The second addresses the need to shift the power structure. By the power structure, I am referring to the background of the people in power. It is essential to identify key positions within the Forest Service. These are the positions that are most influential, not necessarily those "highest up". On National Forests, the Forest Supervisor is an extremely influential position. The mood on the forest is set by the person in this position (i.e. the attitudes, courses of action, and innovation is dictated by this person).

The position of the forest supervisor ties into NP because most Forest Supervisors are foresters, and the background of this person affects what is deemed important on the forest. The Forest Service needs to have a mix of disciplines in influential positions. More recreation foresters and "ologists" need to be recruited for these positions. Bringing in different specialties, therefore different perspectives, will encourage innovation and a new way of thinking at the ground level. "

In addition to the need for additional principles, clearly written objectives need to be established for each principle. Everyone has experienced setting too broad or too large of a goal, therefore never achieving it. Take, for example, a person in "mid life" who decides they are not happy in their life or job. Simply saying "I am going to change my life" is not enough. This is too massive, too new, and too frightening. Only by identifying small steps to take can this change occur. A list of objectives might be: 1) I will exercise 30 minutes each day 2) I will take 1

university night course in different disciplines to see which I prefer 3) I will order a career oriented or job survey magazine 4) I will join one club to meet new people. These are achievable and incremental steps to the large goal. The same needs to be done by the Forest Service or the change will be "too massive, too new, and too frightening".

To explore the application of this, consider the first principle--sustainability. If Forest Service personnel decide to consider soil, water, air, and biodiversity, this is again too broad. Nothing will occur except futile attempts to use the jargon.

For example, consider biodiversity. Assume the definition is "conservation of the variety of life and life's processes". Objectives might be: 1) Identify the major ecosystems on the National Forest and the % they occur within the Forest 2) Complete wildlife surveys to get a list (although impossible to be comprehensive) of species using the forest 3) Set lower limits of ecosystem change (use % established in objective 1 as a base) 4) Do 10-year surveys started in #2 to identify the amount of species composition and population change within the Forest. (This will be needed as baseline data before you can set limits of acceptable change).

Again, this will allow for achievable goals. The same needs to be done for the other principles.

Finally, I would like to address the 4th principle of Collaboration. The Forest Service is often criticized about being reactive, not proactive. Their lack of progressiveness stems from

two problems: the lack of openness that can occur without progressive people in positions of influence (mentioned before), and the lack of collaboration between managers and researchers. One of the most important tasks of NP should be to accomplish this collaboration. Progressive forest management will not occur without this!

This inability of managers and researchers to work together for common goals is a problem in many agencies and even in universities. In universities, professors are rewarded for research (publishing), not for turning out effective managers. To put this in perspective, this distinction is as well defined as the separation of foresters and wildlife biologists.

The problem on National Forests stems from researchers being separated from managers in office locations as well as forests. Researchers conduct research on experimental forests or on the forests closest to their base station. Some forests never conduct research. The managers are told not to do research because there are researchers for that purpose. More appropriately, it appears that the managers are not trusted to set up well designed research projects. I do not argue with this because managers are not trained for research. Consequently, managers are sent a monthly list where they can order papers done by the researchers, but this never brings the research close to home. Many times the research doesn't even address the needs of management or doesn't know how to put it in terms the manager can use for application. For example, a researcher might find that mortality of bighorn sheep is often associated with lungworm. This is interesting to the manager, but

not applicable unless he/she knows that the worm is transmittable from domestic sheep. The manager can then separate the ranges of the bighorns and domestic sheep to avoid the transmittance of the disease.

I recommend bringing the researchers onto different forests for projects. This requires the researcher and the manager to communicate and understand the others position and needs. Eliminating the spatial separation is part of the battle. Another possibility is trimonthly trips to experimental forests to discuss current research. This allows managers to ask questions of the researchers and be more up-to-date in forest and wildlife management.

In an article by Macnab (1983), the need for managers and researchers to work together is emphasized.[1] They (Macnab is 4 authors under one penname) recommended that managers conduct research during their frequent manipulations. The key, they said, is to recognize that any manipulation in nature is an experiment. Ecosystem management is based on assumptions or principles that are not facts, rather untested hypotheses. The manager should use hypotheses as hypotheses and not facts during their routine manipulations. This would mean perform manipulations as experiments. Macnab said managers too often treat hypotheses as fact.

On the other hand, the researcher recognizes the need for

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[1] MACNAB, J. 1983. Wildlife Management as Scientific Experimentation. Wildl. Soc. Bull. 11(4). 5pp.

experiments but must find ways to manipulate. This manipulation is needed for well defined experiments and to bring a system out of equilibrium for observation. Therefore, their recommendation, is to have the managers conduct research. I do not agree.

Managers are too busy with budgeting, supervision, mandatory projects (targets), and making mitigation recommendations. Setting up well designed and time consuming research projects is out of the question. However, the constant manipulations on National Forests are a perfect opportunity to study ecosystems, so researchers should take advantage of this. The researchers are needed but should be working with and for the managers. The goals can and should be accomplished together.

In conclusion, New Perspectives needs to be an aggressive course of action, not just a way of thinking. Additional Principles need to be added, and these principles must be made up of well defined objectives. A very important principle in NP should be the addition of a mix of disciplines in positions of power. I did not address the need for the Forest Service to revise its evaluation procedure, but this is essential to revising forest management practices. The reward system rewards loyalty to the agency and the ability to meet targets. Rewards need to be given for ingenuity and demonstrated integrity for professional land management. Finally, if the Forest Service ever hopes to be known as a leader again in land management, it needs to get the managers and the researchers together. This can only be done by removing the spatial separation between the two.

Steve Bachmann
NR 491.D

New Perspectives and Timber Management

At the time of its conception, the U.S. Forest Service was created for the purpose of managing the resources of our national forests for the American people. Until recently, Forest Service management practices had always placed a major emphasis on commodity resources that could be taken from the land, such as timber and minerals, with a lesser emphasis placed on recreation, wildlife, cultural resources, and wilderness.

As the United State's population continues to grow the demand for our forest resources continues to increase. Simultaneously, the American people are also beginning to take an interest in how the Forest Service manages these resources. Our recreation, wilderness, and wildlife resources, which for so long have been hidden in the backdrop of forest plans, are now being elevated to a level of importance that is unprecedented in the history of Forest Service management. No longer can the Forest Service continue to manage the land focusing on only a few resources on a commodity basis. Instead of focusing primarily on what is taken from the land, the forest manager must learn to manage for what is left behind. Changing a management philosophy that has been in place since World War II is not easily accomplished.

In an effort to meet this new management challenge, the Forest Service has created the New Perspectives program. What exactly is

New Perspectives? At this time, the New Perspectives concept is in its infancy and no official definition has been given. In the context of timber management, New Perspectives is a new way of looking at old, and current timber harvesting practices as they relate to a bigger picture involving sustainable ecosystems and biodiversity. Hal Salwasser, the Director of the New Perspectives program, and his management team have identified four components that are inherent to the idea of New Perspectives.

1) **Sustainability:** When a resource is removed from the land the forest manager must manage for what has been left behind. For example, when timber is removed from the forest, the forest manager must look at how the land is being affected. How is the removal of timber effecting the biodiversity of the region? Managing the land for sustainability while continuing to harvest timber is an essential element of the New Perspectives philosophy.

2) **Participation:** If the Forest Service is to manage forests' properly, it has to do a better job at soliciting input from outside sources. The forest planner must actively listen to the concerns voiced by the public he is serves. The Forest Service must address public concerns and then determine whether they are valid enough to have an influence on the preparation and planning of forest plans. Additionally, the Forest Service must find a way to involve more people in the planning process. Our forest management practices should not cater to the wants of only a few interest groups. Forest management practices must strive to

reflect the view of all of the American people.

3) **Integration:** The Forest Service must take a new look at the way it gathers data to implement management policies. All possible resource effects should be considered when developing management objectives. Tools such as GIS will play an important role in helping forest managers see the big picture.

4) **Collaboration:** When formulating management plans, the Forest Service must work with local communities and interested parties that have a stake in management decisions. By doing so, the Forest Service will demonstrate that it has an interest in the community and is willing to let the community play a part in determining management objectives.

New Perspectives involves the synthesis of new and old management practices and an overall rethinking of how the Forest Service manages America's resources. It is the intent of this paper to examine the New Perspectives concept as it relates to timber harvesting in National Forests.

Timber has been the primary commodity resource on many national forests over the last century. In the past, timber sales have not been subject to the rigorous reviews that today's timber sales must undergo. Not too long ago, a timber sale could be set up in a short period of time with little difficulty. The sale area would be designated, the trees would be marked and cruised, and the contract prepared and sold to the logger. This type of preparation

was the norm before the ideas that culminated in the New Perspectives program took root and the pressure for change began to occur within the Forest Service. With emphasis placed on timber over other multiple uses, the Forest Service had not been practicing classical multiple use management. The Forest Service was guilty of aligning itself with timber interests and providing for their needs. It was not considering the other resources that it was supposed to be managing.

As the nation's environmental awareness grows, Americans are becoming concerned with more than just how much timber the Forest Service can extract from the land. People are concerned with the protection of endangered species and the presence of continued biodiversity within the forests. The protection of the northern spotted owl has led to the cancellation of timber sales in the Pacific Northwest, and more lands are likely to be set aside for the protection of other endangered species in the future. This, in turn, is having an effect on the local communities within these regions and the timber industries that depend on timber for their livelihood. Additionally, the importance of cultural resources has had an effect on the planning of timber sales. Before a sale area can be logged, it must be surveyed by the cultural resources department for areas of historical and prehistorical significance. If the area is found to have archeological findings, logging may not be allowed to proceed, or the logger will have to work around the archeological sites. This will affect the location of skid trails, landings, and the amount of timber awarded to the logger in

the contract. In the past, the preparation of a timber sale simply involved marking the trees. Now the sale area must be surveyed for cultural resources and, on the west coast, monitored for the presence of spotted owls.

The Forest Service is faced with the challenge of making the right decisions to manage the national forests to insure biodiversity and the preservation of a sustainable ecosystem, while simultaneously continuing timber harvesting practices. Amidst increasing pressure from environmental groups and timber interests, forest managers believe that they are caught in the middle of this conflict of how are National Forests should be managed and that this conflict will be a difficult one to resolve.

The timber question is the most difficult for proponents of New Perspectives to answer. It seems apparent that reducing the timber cut on forests throughout the country will result in the loss of jobs and in some cases, such as the Pacific Northwest, will severely cripple an economy that has relied on timber for harvesting. From a local standpoint, the pressure to keep the cut up in these small communities is tremendous. However, the forest manager must not be strictly limited to consideration of local concerns, but must listen to the opinions of the American people as well. Currently, national sentiment is leaning towards the philosophy of forest sustainability and biodiversity, or said another way, the preservation of our endangered species and forest wildlands.

It is painfully obvious that if the Forest Service continues

to allow timber harvesting at current levels, forests will be unable to support biodiversity, or sustainable ecosystems. In the worst case scenario, this would create an ecological disaster. It is impossible to predict exactly what consequences could arise from the destruction of entire ecosystems and the disappearance of plant and animal species from our planet. However, the pure uncertainty of the matter should be enough to warrant serious consideration of New Perspectives ideas until the Forest Service better understands the effects of their current timber practices on local, regional, and global ecosystems.

It is clear that in order to emerge from this conflict, the Forest Service will have to change its current management practices. The four principles behind New Perspectives can provide a foundation for changing how our forests are managed. Each principle will now be examined individually as a tool for resolving the conflict and improving the Forest Service's timber management practices.

Sustainability

What is a sustainable ecosystem and how can the Forest Service manage for it? A sustainable ecosystem is an ecosystem that is managed in such a way that resources can be extracted from the ecosystem, and land use practices such as recreation and range can take place on the ecosystem, while at the same time preserving (sustaining) all of the natural components of that ecosystem. The management of sustainable ecosystems involves looking at the big

picture. By monitoring for the presence of the northern spotted owl, a forest indicator species, the Forest Service has taken one big step in moving towards sustainable ecosystem management. The concept of biodiversity is defined as the preservation of the "variety and variability among living organisms and the ecological complexes in which they occur."[1] If the Forest Service is to be effective at preserving our forest ecosystems, it will have to increase its monitoring efforts of the cycles of life occurring in these ecosystems. The Forest Service must strive for a better understanding of all of the components existing in the ecosystem, and all of the natural processes occurring in the ecosystem if it is to manage our forests for biodiversity and sustainable ecosystems management. Obtaining all of this information will be an enormous task. Science and technological advancements will aid the Forest Service in the collection of this information. A better understanding of how timber management practices effect each ecosystem will enable the forest manager to make sound management decisions on what timber management practices should be used when harvesting timber on our forests.

Participation

Participation in this case refers to the involvement of outside interest groups in the timber sale planning process. Obtaining information from environmental groups and timber

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[1]Parker, Kathy, President, Oriskany Institute, NR491.D lecture March 20, 1991.

interests will not be difficult. These groups often find ways to present their opinions through public forums and other activities and will rarely miss opportunities to express their viewpoints. However, these groups represent only a small proportion of the American public. If Forest Service timber management practices are to reflect the opinions of the American people, then the Forest Service must find ways to solicit input from all people who have an interest in how forests should be managed. To do this the Forest Service will have to become more effective at obtaining information from the public. This will involve increased publicity of public hearings at which proposed Forest Service plans are reviewed for public opinion.

The Forest Service will have to increase its public relations efforts, and develop methods to solicit opinions from the American people. Once people begin to realize that they actually have a stake in the outcome of a forest plan, they will be more likely to participate in the planning process. In order to reach urban populations that are removed from national forest lands, the Forest Service will have to develop methods such as surveys and polls to solicit input from these people. This increased public interaction will also help to improve the image of the Forest Service.

Integration

Integration is a vital component of New Perspectives. In order for the other three principles to be effective, the Forest Service must demonstrate that it is willing to set an example and

work within the agency in solving management problems and setting management policy. For the timber department, this means working together with representatives from wildlife, cultural resources, fire, watershed, and recreation to discuss timber sale preparation. It is in this planning process that the Forest Service must prove that it is willing to make a commitment to change.

The forester must work with, not against, the forest biologist, and the other players in the timber sale planning process. This may not seem a difficult task until one considers the pressure placed on the Forest Service to manage for timber while managing for wildlife, recreation, range, watershed, and cultural resources.

In the case of the spotted owl, the wildlife biologist is responsible for protecting wildlife interests. The spotted owl is an indicator of the health of old growth forests. The absence of these owls may mean that Forest Service management practices are negatively affecting the biodiversity and sustainability of the forest. Often the location of spotted owl habitat conservation areas (HCA's) will conflict with lands that have previously been designated for timber sales. In some cases a trade can be arranged for the HCA location, but in others the location of the HCA cannot be moved. Sometimes the amount of land exempted from a sale area due to the inclusion of an owl HCA will be great enough to make the sale economically unfeasible. On my forest, there were cases where the Sale Administration Officer had to confront the contractor with

the information that the sale he had just bid on and procured for logging had been canceled due to the area being designated as spotted owl habitat. This was not a desirable outcome for either party.

As Forest Service policies continue to change, conflicts will continue to occur. There may be no simple way to resolve these problems however, it is essential that the timber officer work with the other members of the sale preparation team in an attempt to foster mutually agreeable solutions. By keeping up on the current departmental trends, the timber manager will have a better chance of forecasting for changes that may influence the planning of sale layouts or alter timber policy.

Collaboration

It has already been made apparent that the collection of all of the data necessary for formulating sound timber management policies is going to be an enormous task. To overcome this barrier to New Perspectives, the Forest Service is going to have work with outside interests, which will assist them in gathering the data necessary to build a complete data base from which to make educated management decisions.

The involvement of the scientific and academic communities will aid the Forest Service in research and resource monitoring efforts. Tools such as Geographical Information Systems will enable the timber manager to plan timber sales at a maximum level of productivity while at the same time providing for wildlife,

cultural resources, recreation, and watershed interests. Collaboration with outside interest groups will also show local communities that the Forest Service is willing to work with them in planning for future timber sales.

The Forest Service faces a tremendous challenge in managing for timber, minerals, wildlife, fire, watersheds, grazing, recreation, and cultural resources under the principles of New Perspectives; however, the task is not an insurmountable one. By applying the principles of sustainability, participation, integration, and collaboration, the Forest Service will have the tools it needs to move forward towards wiser management of our nation's resources.

PERSPECTIVES ON "NEW PERSPECTIVES"

by

J.E.BURKE

NR 496

SPRING, 1991

PREFACE

Having been introduced to "New Perspectives" repeatedly this past year, as both a student and an employee, I have had significant opportunity to reflect on the nature, as well as the validity, of the United States Forest Service's latest attempt to address the evolving public demand for responsive and innovative natural resource management.

Indeed, as America approaches the decline of the twentieth century, it is ironic this nation finds itself building values for the next century out of the coincident decline of the global environment. It is also ironic the very agency that was awarded stewardship to "care for the land" should be indicted by the people it was charged to serve. Furthermore, the indictment is not for neglect, but rather a perceived wanton misappropriation of public forest lands.

Ten years ago, I was a dues-paying member of Earth First! I had climbed on the "environmental bandwagon" that billowed in the seventies, possibly as a result of unresolved indignation or residual rage, stemming from the Viet Nam War era. Still, the suspicion Earth's "biological capital" was being spent at a rate inconsistent with that of its replacement seemed valid.

Legislative efforts, while successful at enacting federal regulatory laws, were proving themselves ineffective with respect to enforcement; there was, and still is, a conflict of interest. At any rate, federal compliance became the responsibility of the citizen, thus the onset of radical "formal publics" such as

Greenpeace and Earth First!, as well as surging membership in "flagship" special interest groups such as the Sierra Club.

I was, admittedly, a fairly zealous participant in several environmental crusades from the latter part of the seventies through the first part of the eighties; I was sure we were all "going to heck in a hankie."

First, there was the energy crisis. I was driving a tanker for American Oil at the time; the wells were capped-off, I was laid-off, the public was told there was an oil shortage, and the federal government declined to intervene. In any event, pollution of the environment was perceived universally as a threat to the well-being of all Americans, and oil refining was contributing its fair share to depleting the ozone: I bought a bicycle with my unemployment check.

Then, of course, there was James Watt, former Secretary of the Interior. I have to wonder how he could be forgotten so easily. Just ten years ago, you may recall, Watt was an advocate for increased commercial use of federally protected national parks and wilderness areas. He even suggested selling public lands to reduce the deficit.

I was an instructor for the National Outdoor Leadership School (NOLS) during the Watt era. My principle task was to teach low-impact camping and wilderness ethics to future outdoor recreation instructors. I was "stationed" in the North Cascades of Washington and enjoyed a daily vista of clearcut forests on the horizon. I became

outraged and Earth First! offered an attractive medium for forcing the issue before an unresponsive government. I still believed in "the power of the people." Unfortunately, Earth First! adopted tree spiking to thwart the onslaught of the USFS and timber harvesting. Somehow I could not "buy" the relevance of impeding the depletion of national forests with a method that, if anything, endangered the vigor of stands by putting holes in those trees most prone to infection. I resigned from Earth First!

In 1985, as a result of a series of unforeseen circumstances, I found myself faced with the opportunity for seasonal employment with the Forest Service in southern Utah. I rationalized, "Ifyou're not part of the solution, you're part of the problem," and accepted a position on the **timber marking crew!** The fact that I was unemployed, and on the verge of starving, was conveniently irrelevant in the face of such a noble cause.

This month marks the sixth anniversary of my employment with the United States Forest Service. I found I enjoyed the work - having "a hand" in the decision-making process at the field level. It was a natural progression, as a "seasonal," to aspire to a career as a full-time forester. I enrolled in CSU to achieve my degree.

I find myself, now, just one semester from graduation. I am all-but-assured a permanent position with the Forest Service, as a "Co-Op Ed." But the past three years, here, at CSU, have fostered the resurgence of issues I had laid to rest as my tenure with the Forest Service advanced.

"New Perspectives" has given credence to accusations repeated, ad nauseam, to the point that those of us "in the field" had simply ceased acknowledgement; it seemed **everything** the Forest Service did was wrong. I find myself, once again, struggling to achieve a balance between ethics and loyalty.

PERSPECTIVES on "NEW PERSPECTIVES"

When Luna Leopold, the son of Aldo Leopold and now a retired professor form UC Berkeley, addressed an Intermountain Region Leadership Team meeting last spring, he accused the USFS of having become "tree farmers," of having "lost the idea of being a forest manager," of maintaining research programs that were "not answering questions that resource professionals are asking." He asserted, "The Forest Service has taken on the job of overseeing the destruction and disintegration of the forest empire of the American public." He concluded federal lands managers would be well-advised to dust off their copies of his father's A Sand County Almanac, the cornerstone of the ecology movement.

"New Perspectives" is the United States Forest Service's response to the public demand for a new mandate. It is an ambitious proclamation that promises new emphases on bio-diversity and a basic shift from paying almost exclusive attention to "outputs" at both the stand and landscape levels. More importantly, "New Perspectives" seeks the restoration of the public trust.

While the first emphases are really talking about a fundamental change in the way we perceive forests, the latter challenge - restoration of the public trust - is talking about how federal land management agencies "deal" with the public. In my opinion, this issue will test the validity of "New Perspectives."

Historically, the USFS has adapted their methodology to incorporate principles evolved from scientific enlightenment. While the shift mandated this time is more

dramatic, foresters do fancy themselves scientists, after all.

It is, in fact, a scientist's ego combined with the past impunity enjoyed by the federal government, that has brought the USFS to the low level of esteem it occupies today. One could argue some politicians enjoy greater respect and credibility than the Forest Service does presently; the public simply does not believe the USFS represents their interests at all. Furthermore, until the USFS can demonstrate responsiveness and a willingness to empower the public within the decision-making process, no program, regardless of its pertinence to sound management principals, will enjoy public support.

Consistent with the "scientist's ego," mentioned previously, is the contention the public has not the knowledge to make sound natural resource management decisions. There is an inherent impracticality in the agency "charter" that commands the USFS to "care for the land" and "serve the people." While I am not suggesting the USFS cater exclusively to public whim, I do consider its future as a federal land management agency does lie in public hands.

Conservation education should be adopted as a pervasive attitude and direction at all levels of the agency now. It behooves the USFS to provide as much information to the public as possible; the public is capable of making sound decisions if it is adequately informed. And since the courts have historically upheld the public intent, it behooves the USFS to adopt a proactive, as well as reactive (re: cya), stance with respect to public relations.

This brings us (at last!) to the subject of the university as a cooperative extension of "New Perspectives." There is currently a tacit assertion among the "movers" in the USFS that as soon as the "old guard" retires, the agency willbe unfettered in effecting "New Perspectives." Currently, CSU offers various degrees in natural resources management that embrace classic attitudes and methods of management specifically targeted as unacceptable by the public, and inconsistent with ideals that are the bases of "New Perspectives." In a nutshell, the "old guard" is being replenished by new professionals with traditional training.

The various baccalaureate curricula offered in natural resources management can best complement the new Forest Service direction with the development and introduction of **required** courses in public relations, philosophy of ethics, and sociology or social psychology. While CSU currently offers course work in public relations, at both the undergraduate and graduate levels, it is only required for those majoring in Natural Resource Management. Certainly the Department of Forestry needs to be targeted here.

In addition to, and perhaps prior to, exposure to concepts in public relations, students should receive some academic background in social interaction. (I might add, with respect to the debate that arose at the end of this last class over the usefulness of social surveying: this data does represent information that should be available to the prospective graduate.) And, while I have always cringed whenever I found myself

cornered at cocktail parties by over-eager EST graduates (generically, we call 'em "yuppies" today!), I do suggest a fine understanding of the difference between aggression and assertiveness would go a long way in the field. In fact, CSU could really do its prospective alumni a huge favor if they were encouraged to elect course work exposing them to the art of persuasion. My experience, as a USFS employee, has been universally favorable with respect to the interaction with the public I was allowed to promote.

The greatest challenge I face, as a professional forester, will be convincing my co-workers and, more importantly, my superiors of the efficacy of engaging "publics" as participants for any significant district-level project. How I wish I had elected such a course.

Certainly one aspect of the partnership between university and the agency should embrace methods of augmenting the success and effectiveness of the recent graduate-made-professional. It is frustrating to watch bright resource managers, the Forest Service desperately needs, quit because the agency renders them powerless with petty politic-ing that is founded upon someone's past "mis-experience;" this is a "catch-22" at it's very worst and it forebodes the ultimate result of such self-fulfilling prophesies if the new employee cannot break down the barrier.

I mentioned the need for exposure to the philosophy of ethics. In my opinion, the USFS does not need to adopt a new ethic; they need to return to their original

ethic. Why is A Sand County Almanac not required reading at some point before graduation from CSU? The question of ethics lies at the heart of the public demand: Is it ethical to deforest land? That the recent graduate-made-professional will not be exposed to environmental ethics in its practical application in the current Forest Service is, I think, moot.

Jeff Debonis, founder of AFSEEE, spoke several times on campus last week. For the most part, I was not impressed, however, he did make a couple of good points. First, he was adamant about the USFS role in reducing the annual allowable cut.

It is true "New Perspectives" has no chance for success without the cooperation of Congress, and it is the responsibility of the USFS to undertake this mission. This agency must make a full disclosure of the effects of continued over-cutting. This would constitute a major step towards a return to the ethos prescribed by Aldo Leopold and I know of no USFS resource manager that would not applaud such an action.

The second "good point" Debonis made was directed at the issue of "free speech," or the lack of it, for federal employees. Certainly the success of a full disclosure to Congress would depend on either a willing martyr or a re-assertion of the ethic explicit in the concept of "free speech." Students need to be given the opportunity to assess their own evolving sense of ethics and its future applicability.

In closing, I choose to commend CSU for the pro-active role it has assumed

in supporting the USFS in its efforts to stay alive. I have been repeatedly struck by the the living oxymoron that is the United States Forest Service: never have I met a brighter, more caring and hard-working group of individuals who enjoy such a poor public image! I do not, for a moment, doubt the Forest Service's capacity to adapt natural resource management methodology to implement revolutionary ecological concepts, but the concepts of "New Perspectives" are really twofold. Should it fail to demonstrate true substance in terms of developing a partnership with the public, "New Perspectives" willhave failed entirely. As an agency, I doubt it willbe given another chance.

New Perspectives in International Agricultural Development Projects: The Quest for Sustainability.

For: Dr. Tom Bartlett
NR493 New Perspectives in Natural Resource Management
Spring Semester 19
Jeff Randall Jones

A. INTRODUCTION

The concept of sustainability is sweeping through the halls of Congress, public land agencies and the United States Agency for International Development with mercurial speed and intensity. Despite the unsolved problems of definition and application, sustainability has been adopted by a broad spectrum of agencies ranging from the U.S. Forest Service to the World Bank, leaving little doubt that this enigmatic concept is here to stay. Hence, there is a need to develop a conceptual framework by which natural resource policy makers can evaluate the effects of applying sustainability as a goal for success. No where is this need greater than in the international development community, specifically, projects involving agricultural development.

Effective agricultural development projects require development agencies to find better ways of achieving agricultural sustainability to meet increasing populations demands. This must not be done at the expense of rapid deterioration of soils, water and vegetative cover. Development coupled with conservation places donor agencies in a position where they must make hard decisions on where to allocate their limited financial resources and how to measure the success of a project. This paper will examine one issue surrounding such a hard choice; i.e. What are the factors development agencies should consider when evaluating and comparing the potential for successful sustainable agricultural development projects on marginal versus prime land?

B. WHY THIS ISSUE

Presently, 220,000 babies are born everyday - 150 every minute, an additional mouth to feed every half second.[1] Higher population growth leads to the inevitable need to increase agricultural production on land that is already under cultivation, forcing an increase in the use of marginal and fragile land for agricultural production.[2]

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[1] Goldsmith, E. and Hildyard, ed. 1989. The Earth Report: The Essential Guide to Global Ecological Issues, Los Angeles: Price Stern Publishers. p200.

[2] The most widely practiced form of farming in the tropics is shifting cultivation. Gradwohl, Judith and Russell Greenberg. 1988. Saving the Tropical Forest, Island Press: Covelo, Calif; Washington D.C. p214. Shifting cultivation is also known as slash and burn, swidden, milpa, conuco, landang, kamgin, taungya, an many other names. Lamb, Bruce F. 1987. Lamb, Bruce F. 1987. "The Role of Anthropology in Tropical Forest Ecosystem Management and Development," Journal of Developing Areas. 21:429-458 p434.

There is no doubt that increased demands can be partially met by intensifying the output on prime agricultural land. However, the inevitable increased demand to develop marginal lands brings about a "need for greatly increased research and development of agronomic practices for the marginal and fragile lands that have largely been ignored by the scientific community."[3]

It is estimated that as many as 240 million people are growing food for subsistence in rural tropical areas and with increasing populations, the present conversion rate of eight million hectares of forest annually is expected to increase.[4] The increasing demands for agricultural products and the subsequent increased use of marginal and fragile land will create a heightened need for development agencies to examine and develop methods of agricultural production which will provide long-term environmental stability.[5]

Recent claims assert that shifting cultivation is;"the most ecologically sound system of farming in the tropics." Earth Report, supra note 1. It is also called the; "single most important cause of deforestation ... which accounts for 70,50,30% of the areas deforested in Africa, Asia and the Americas, respectively." Brady, Nyle C., Statement before the Subcommittee on Natural Resources, Agriculture Research and Environment of the Committee on Science and Technology. U.S. House 97th Congress,p161-164.

These antithetical positions articulated above can be attributed to changes in population. As populations increase, what was largely an ecologically sound method of agricultural production becomes environmentally unsound due to reduced fallow periods. See " The Transition to Sustainable Agriculture : AN Agenda for AID." Ad Hoc Committee on Sustainabilty in Agriculture. BIFAD, USAID. December 18, 1987. Superceded.p27.

[3] Wilken, Gene." Perspectives of the Universities," Title XII Regional Seminar, Workshop: Implementing BIFAD Strategy on Sustainable Agriculture, BIFAD. Colorado State University, Ft Collins, Colorado. Jan. 14-15, 1988. p2.

[4] Saving the Tropical Forest, supra note 2, at 32.

[5] Recently, the Board for International Food and Agricultural Development (herein after BIFAD) enunciated the need to focus development strategies on marginal and fragile land agricultural production with;

Furthermore, development agencies must develop measurement procedures which determine if a project is passing the litmus test of sustainable development.[6]

C. ASSUMPTIONS NECESSARY FOR SUSTAINABLE DEVELOPMENT

The first steps for implementing successful sustainable development projects falls in the hands of the host governments, who must be initiating policies that do not sacrifice their natural resources under the guise of economic development. As World Resource Institute economist Robert Repetto notes, "Policy reform and increased development efforts go hand in hand. Unless policies that induce forest destruction are changed, investments in reforestation, watershed management, and wildlife conservation will be overwhelmed." [7]

Consequently, prior to initiating any sustainable development project in a developing country the recipient government should be actively pursuing policies that reduce the social causes of resource degradation.[8] While there is considerable discussion

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> To a growing extent, AID should promote one aspect of agricultural sustainability largely overlooked by other development agencies: the fate of the poorer farmer on the more fragile lands who to often unwittingly contribute to the destruction of the very resource base on which their own country and beyond) must depend for food." BIFAD, supra note 2, at 5.

[6] It is clear the development of indices assigning goals to the often conflicting goals of productivity and conservation is a monumental task. However, there is a growing movement within the development circles which contend that ecology and economics share more than etymology. Some have argued that conservation and economic development are often mutual victims of the same policy and that uneconomic policies are most often the most environmentally destructive. It follows that the introduction of economically sound policies will bring with it ecological benefits. See Repetto, R. and M.Gills, ed. 1988. Public Policies and the Misuse of Forest Resources. Cambridge: Cambridge University Press.

[7] Id at 4

[8] While this is a policy objective that a recipient government should be pursuing, development agencies can play a role. A more equitable access to economic, social and political opportunities is a defined USAID objective. The United states Government Manual.

regarding the social causes of resource depletion, the following discussion will concentrate on four areas which greatly contribute to resource degradation; inequitable distribution of resources, land tenure, political instability, and the use of inappropriate technology. Any hope for measured sustainable development is unlikely, unless a developing government is actively pursuing the following policy objectives.

(1) National policies which encourage the equitable distribution of resources. Until the distribution of natural resources and income are more equitably distributed, the disenfranchised will continue to farm on marginal tropical forest land. [9]

Office of the Federal Register ,1988/1989. However USAID's other objective to increase production, consumption and trade often takes precedence at the cost of equity. Hansen, David and J. Mark Erbaugh "The Social Dimension of Natural Resource Management," in Sustainable Development in the Third World, ed. Douglas D. Southgate and John F. Disinger Westview Press Boulder & London 1989, p81-94.

[9] One author notes in his principles of sustainable development that all projects must include components of social justice and humanness. Social justice has two components, equitable control of resources and a framework which allows people to participate in decisions which affect their lives. Gibs, Terry. "What is sustainable Agriculture ?," in Sustainable Development: A Guide to Our Common Future, prepared by the Global Tomorrow Coalition, Washington,D.C.p2 1989.

This authors operational definition of sustainable development places the development agencies in the difficult position of tampering with a host countries respect for human rights. Gibbs notes that equitable control of resources includes access to land for agricultural production, availability of capital, technical assistance, market opportunities. Additionally," the landless should have the right to organize, the right to a safe work place, fair wages, proper living conditions, and the right to nutritious , healthy food. While "humane agriculture" (aka humanness), must embody the highest human values in all aspects: from respect for life to the protection of diverse cultures." Id at 11.

These considerations of social justice and humanness do not belong in the operational definition of sustainable development, but are better suited within the evaluation process that takes place prior to establishing the plans for a project. Accordingly, social justice and humanness are not a part of a sustainable development measuring stick but are bricks within the foundation a host government should be building prior to the initiation of a

(2) Equitable land reform is underway. Until farmers are provided with unequivocally, secure land tenure, there is an underlying assumption they will be unwilling to make investments which will insure protection of the resource base.[10] Furthermore, land tenure laws often encourage deforestation as method of improvement of the land vitiating any former rights and placing land tenure rights in the hands of the deforesters.[11]

(3) Political instability is at a minimum. Many of the manifestations of political instability create an environment of uncertainty. Uncertainty about future use of resources leads to a use it before you lose it state of mind.[12] Furthermore, effective

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project.

[10] Private property rights may provide the necessary incentives for agriculturalist to practice methods of farming that are less environmentally destructive . One author found that land tenure variations had a direct effect on a farmers decision to plant perennials. Sellers, S. 1988." The Relationship Between Land tenure and Agricultural Production in Tucurrique, Costa Rica," edited by Louise Fortmann and J.W. Bruce, in Whose Trees? Proprietary Dimensions of Forestry. Boulder: Westview Press. p.75-79. It is argued that land owner's incentive to invest in agriculture and especially in a land holding increases with the exclusivity and security of tenure. Id. at 77.

[11] Land tenure and deforestation have a long relationship as cause and effect. In the seventh century the Koran enunciated a concept which granted title to vacant land to one who clears it and places it under cultivation. Schacht, J., 1964. An Introduction to Islamic Law. London: Oxford University Press. In the Malaysian state of Sabah, laws dating from the British colonial period make the state government the holder of all forestry property rights, vitiating the traditional rights of local communities, but permitting any native person title to forest land by clearing and cultivating. Public Policies and the Misuse of Forest Resources, supra note 6. In Indonesia , traditional land tenure holds that the first to clear the land retains use rights. Colfer, C.J. 1982." Kenyah Dayk Tree Cutting in Context: Final report Interaction Between People and Forests in East Kalemantan." Washington D.C.: Indonesia - U.S. Man and Biosphere Project.

[12] Murdoch, W.W. 1980. The Poverty of Nations: The Political Economy of Hunger and Population. Baltimore: John Hopkins University Press.

natural resource management often falls victim to civil strife or other products of political instability.[13]

(4) The introduction of new technologies do not cause resource degradation as a result of breakdowns in traditional management strategies.[14] Furthermore, governments should be limiting the use of new technologies which are inappropriate due to their high capital investment and insensitivity to local social and cultural norms.[15]

(5) The establishment or development of health, particularly infant health programs, educational opportunities for the poor, and programs which address the need to reduce overly rapid population growth in many developing nations.

The preceding assumptions should predicate development support, with development funding tied to evidence that a host government is actively pursuing these policy objectives. In many cases development agencies such as USAID can play an active role by assisting governments in carrying out policies which address the necessary assumptions previously mentioned.[16] However, issues of equity and social justice should not be incorporated into the

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[13] Eckholm. E.P. 1982. Down to Earth. New York: Norton.

[14] Lawry, S.W. 1983." Land Tenure, Land Policy and Smallholder Livestock Development in Botswana," Land Tenure Research Paper #78, Madison Wisconsin, March, 1983.

[15] Among the many examples of insensitivity to local customs include an attempt to introduce white leghorn chickens into Zinacantan, Mexico. Despite the leghorns' beneficial rates of egg production the locals had no use for them due to their need to use black chickens for ceremonial purposes. Vogt, E.Z. 1969. Zincantan: A Mayan Community in the Highlands of Chiapas. Cambridge: The Belknap Press of Harvard University Press.

[16] It has been suggested that USAID support programs should address issues of land tenure, land reform, support structural adjustments which encourage conservation, improve illiteracy, reduce over-population, and improve the status of women in participating in development decisions. " The Transition to Sustainable Agriculture: An Agenda for AID." Ad Hoc Committee on Sustainable Agriculture. International Institute for Environment and Development(IIED). June 18, 1987.

definition of sustainable development for the purpose of measure successful development projects.[17] Following is an examination of how sustainable development should be defined for the purpose of measuring success.

D. SUSTAINABILITY DEFINED

The literature is replete with definitions of sustainability, crossing an diverse spectrum of meanings.[18] Its elusive characters may be attributed to its characteristics as "a goal rather than a technology or discipline (even though these are implied) its power as an organizing concept in development is perhaps greatest in the areas of policy and programs."[19]

Sustainability is a concept or criteria which has a chameleon character, changing with the site it is applied to. However, sustainable development must always possess certain uniform characteristics.

Sustainable agricultural systems must maintain production over time, withstanding ecological difficulties and economic and social pressures. It "maintains and enhances human, physical, and productive capacity without damaging the underlying resource base."[20] Simply put, sustainability involves the marriage of production and protection of the resource base.
Thus, agricultural sustainability is nothing more than a form of

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[17] IIED formed a committee composed of members of the environmental community, private voluntary organizations, the World Bank and many regional Banks for the purpose of what it hopes to see USAID do and to work with Congress on agricultural sustainability. The committee concluded that; "Although we clearly recognize that sustainability as it increasingly being correctly defined as having many facets; ecological , economic, political, and sociological, we believe that the protection of the resource base is the crucial, and the most often neglected base of sustainability." Id at 4.

[18] Sustainable Agriculture: Definitions and Recommendations. Assembled by the BIFAD staff, August 1989.

[19] Freeman, Peter H." Sustainable Agriculture in Development Assistance," IIED Information and Analysis, Contract No. I&A-2, August 1984, August, 1984.

[20] International Agricultural Update, University of Illinois, Speech of James Speth, VOl.4,No.3, pg.5, 1989.

natural resource management which has improving or enhancing the resource base and increasing agricultural production as its mission.[21]

E. LAND CLASSIFICATIONS: DEFINITIONS AND SCOPE

It is axiomatic that land classifications are relative attributes, exclusive to human usage. The environment is neutral. This is important to keep in mind when developing land classifications in order to understand the limits and purpose of placing values on something that exists independent of human use.

A great number of attributes are included in the concept of land, rooting land classifications in many different points of view and for many purposes. For the purpose of this paper I will focus on inherent land quality classifications. Inherent land quality classifications indicate conditions relevant to specific kinds of land use.[22] Furthermore, I will limit the discussion to marginal and prime land classifications, excluding fragile lands.[23]

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[21] Thus, a sustainable agricultural development project is a system that:

> 1. Maintains and improves soil productivity, quality, and till. 2. Augments the potential for achieving the highest possible efficiency in the use and conservation of basic farm resource (soil, water, sunlight, energy and farmer's time). 3. Incorporates as much biological interaction as possible; for example, mulching, the use of nitrogen fixing plants. 4. Minimizes the use of health endangering and environmentally damaging external inputs. 5. Avoids contamination of ground water by using only those fertilizers, pesticides and herbicides that do not penetrate below the plants growing zone and then only in controlled doses. 6. Meets the needs of farm families for energy to work their land, cook, and heat from readily available and affordable energy sources. BIFAD: Sustainable Agriculture Definitions supra note 19 at 2.

[22] Land can be classified from different points of view and for many purposes. For examples of various types of land classifications see, Agricultural Compendium for Rural Development in the Sub Tropics. ed ILACO BV, International Land Development Consultants, Arnhem, The Netherlands: Commissioned by the Ministry of Agriculture and Fisheries, The Hague, The Netherlands. Elseiver Scientific Publishing Co.: Amsterdam, Oxford, New York 1981.

[23] Fragile lands are attributes based on; (1) specific types of use systems, and (2) specific intensity and frequency levels of usage, and vary in fragility based on use and degree of use. Thus,

F. MARGINAL AND PRIME LAND CLASSIFICATIONS

Development agencies have traditionally viewed agriculture as an instrument for feeding the world, driven by economic considerations and guided by cost/benefit analysis.[24] What is labelled marginal or prime land finds a base of evaluation in the physical properties of the land in question. Marginal land is land that possess poor soil conditions,[25] unfavorable topography with little resistance towards erosion,[26] and poor climatic condition,[27]

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fragile lands are lands that;

> Are potentially subject to significant deterioration under agricultural, silvicultural, and pastoral use systems. Indicators of deterioration include both short-term and long-term declines in productivity, negative off-site impacts, and slow recovery of water, soil, plant, and animal resources following disturbance. Denevan, William M. " The Geography of Fragile Lands in Latin America," in Fragile Lands of Latin America: Strategies for Sustainable Development, ed John Browder. Westview Press: Boulder, San Francisco, London 1989.

[24] Douglas, G.K. 1984. The Meaning of Agricultural Sustainability: Agricultural Sustainability in a Changing World Order. Edited by G.K. Douglas. Westview Press: Boulder, London, P3-29.

[25] The United Nations Food and Agriculture Organization (FAO) has a soil productivity rating which is calculated on account of various single physical and chemical factors making up the quality index. Nine properties or factors are taken into account; soil moisture, drainage conditions, effective soil depth, texture/structure, base saturation, soluble salts, organic-matter content, nature/CEC of clay mineral, mineral reserve. Each factor rated is assigned a value from 0 to 100 and is multiplied by each other to arrive at an index of productivity. United Nations Food and Agriculture Organization, 1974. Soil Productivity Rating Index, UNESCO Publications: New York.

[26] Accelerated erosion (as distinguished from normal or geologic erosion) is defined as the detachment and movement of the solid material from the land surface by wind and by moving water. Id. This takes place after man has disturbed the natural balance, by removing the protective cover to introduce land-use activities to meet agricultural requirements. Longer, steeper slopes can increase the velocity and volume of water run off, thereby increasing erosion. However, "it is not possible to predict the

all inherent characteristics which require higher input levels of labor, capital and management to produce the desired output. Thus, marginal lands have traditionally been defined in economic terms as land where each additional unit of input would produce less output than on better or prime lands. Accordingly, land is only marginal if the analyst finds its productive capabilities to be so. Inversely, prime land is so, due to its relatively productive capacity requiring fewer inputs for greater return. This traditional classification has resulted in the inevitable concentration of development resources into increasing production on prime lands. The choice is simple, when confronted with more mouths to feed and a limited pool of resources, invest in land which produces higher outputs for less input.

G. MERGING CONSERVATION AND PRODUCTION IN LAND EVALUATION

Assuming that we adopt the concept of sustainable development (the marriage of conservation and production), land classifications based exclusively on inherent production potential provide an incomplete standard of measurement by ignoring any loss of to the resource base. If sustainable development is embraced as the measuring stick for successful agricultural projects, then the logic of channelling funds into lands that produce more for less at the cost of degrading the resource base vanishes, turning the traditional definitions of marginal and prime land on their heads.

For example, we have two plots of land; plot A possesses all the attributes of marginal land, poor soil and climatic conditions and located on a long steep slope. Plot B has the productive

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erodibility based only on the steepness and length of the slope. The concave or convex curvature of the slope must be kept in mind as well as the vegetation, soil structure and types of soil." Agricultural Compendium supra note 22. It is important to note that land scarcity and population play a role in the variability of maximum slope accepted for agricultural production. For example in parts of Central Africa the maximum slope is 12%, in the Philippines 25%, and in Israel 35%. Id.

[27] Poor climatic conditions includes annual precipitation, examining the intensity, energy and quantity of rainfall, which may increase soil instability and/or may be inappropriate for the production of certain crops, high or low levels of evaporation based on integrated net radiation or relative sunshine duration and high level of climatic extremes and hazards. This includes dramatic variations in mean and absolute maximum and minimum air temperatures and higher incidents in night frost, cold winds, hot-dry winds, extreme wind velocity and hail storms. Agricultural Compendium, supra note 22, at 560.

characteristics of prime land, requiring fewer inputs for greater output than plot A. Due to the increased demand for agricultural products both plots are placed under cultivation.[28]

Assuming the objective of the donor agency is sustainable development - production while maintaining or possibly enhancing the resource base, both farmers' output must include valued improvements to the resource base among measurements of productivity. Improvements would be measured from the conditions of the land after it was cleared for cultivation,ie; land which had experienced a disturbance - a factor implicit in all land converted for agricultural production in a tropical rain forest. Therefore, if the farmer on plot A improves soil conditions by increasing organic matter, reduces erosion with terraces, and improves water quality by increasing vegetative cover,[29] the improvements will be valued and included in calculating the plot's net production.

Conversely, any loss in the resource base due to unsustainable agricultural methods, such as intensive agrochemical use leading to contaminated aquifers or by removing vegetative cover thereby increasing soil losses,[30] such losses to the resource base would be valued and deducted from gross production, reducing net productivity.

Depending on the values assigned to changes in the resource base, plot A may be considered prime land for sustainable

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[28] Unless something is done to resolve increasing population pressures and inequitable land distribution any questions surrounding the soundness of agricultural production on marginal lands are moot. Marginal lands will continue to be put under cultivation at increasing rates. See notes 1-6 and accompanying text.

[29] For a discussion of the use of these techniques see, UNFAO," A Possible Expansion of the CCGIAR." UNFAO - Consultative Group on International Agricultural Research Technical Advisory Committee, Part I Interim Report. September, 1989.

[30] Unlike depreciation of capital assets, resource depreciation is seldom reflected in conventional measures of economic welfare. A system of national accounts which treat natural resources as free goods coupled with the pervasive influence of externalities on resource depletion has resulted in inadequate information to adequately weigh the costs and benefits of conservation practices. See Magrath, William and Peter Arens. 1989." The Cost of Soil Erosion on Java: A Natural Resource Accounting Approach." World Bank Environmental Department Working Paper No.18.

agricultural production based on its greater potential than plot B in improving the resource base while under cultivation. Additionally, plot B may have reached its productive capacity where any additional inputs to increase productivity would come at the expense of resource degradation, thereby reducing it's production potential by the cost of any resource loss.[31]

The preceding example highlights the fundamental and far reaching changes that will follow the embracing of sustainable develoment as a guideline for successful agricultural projects.

H. CONCLUSION

The time is past due for a new manner of thinking about how we can continue to feed expanding populations in developing nations without mortgaging their natural resources. Einstein's verdict which came with the splitting of the atom, " we shall require a substantially new manner of thinking if mankind is to survive," is apt today. This will require a truce between the two warring sides of development - ecology and economics, merging them into an multilevel analysis. Such an approach must be comprehensive, bringing in a number of disciplines, with an emphasis on permanence rather than immediate results. This brings back the difficulties of defining sustainable development.

It should not be thought of as a term, loosely tossed about to satisfy a political agenda for improving the impending global environmental crisis. Additionally, sustainable development is not a mechanism for attacking the damaging and pervasive problems of social injustice and the inequitable distribution of resources, both problems that have crippling effects in many developing countries.

Social justice and inequity should not be ignored by development agencies. The absence of progress by developing nations in resolving these issues will doom sustainable development projects to failure. However, is it wise to require that development agencies incorporate social justice and equity into their evaluation of sustainabilty when they are explicitly prohibited from interfering in the political affairs of the host

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[31] In calculating on-site costs of resource degradation the following requirements must be considered; (1) understanding the dimensions of the [ecological] processes of change, (2) understanding the impact of those processes on the production of valued goods and services, and (3) and understanding the ways in which economic activity adjusts to these changing circumstances. Id at 1.

government?[32] Further, while successful sustainable development will certainly be a journey and not a destination, development agencies must avoid overloading the cart with agendas so they may depart. Steps must be taken before the journey begins.

First, sustainability must restrict itself to the diastrophic process of bringing production and conservation together in development projects. Second, the development community must bridge the gap between ecology and economics and their respective biases. What is required includes not only a new way of thinking, but also an inter-linked terminology and restructuring of models and classifications. This will result in the shattering of unyielding definitions and the subsequent need to redefine others, eg, marginal and prime land.

Additionally, new models of development linking conservation with production will call for new monitoring and evaluation systems. These systems must include adequate base line surveys, geographic information systems and apply environmental impact assessment and assessment of the local community's benefits and involvement.[33] Third, sustainability is site specific bringing with it the requirement that analysis must precede prescriptions.[34] Analysis must include development of farming systems which provide; community management of local projects, environmentally sound land-use planning, low-cost opportunities for increased food production and provide incentives to promote conservation at the farm and community level.[35] Finally, the ultimate success of any agricultural project, is dependent on ability or willingness of the farmer to accept it. Therefore, educating farmers and their communities about sustainable development and sustainable management techniques is a precursor to success. Effective education must nurture the understanding that protecting the natural resource base is fundamental to the present and future survival of the farmer's livelihood.

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[32] The World Bank is prohibited by it's Articles of Agreement from interfering in the political affairs of its members. See Shihata, "The World Bank and Human Rights: An Analysis of the Legal Issues and the Record of Achievements." Denver Journal of International Law and Policy. Vol.17:1 Fall 1989.

[33] See FAO,"Sustainable Development and Natural Resource Management", Conference document C89/2-Sup.2 August 8, 1989.

[34] Id.

[35] Id.

NEW PERSPECTIVES

LONG TERM NATURAL RESOURCE PLANNING WITH FLEXIBILITY

FOR DIVERSITY AND SUSTAINED VALUES

By: J. Nimmo
E.T. Bartlet, Professor

As a course, New Perspectives has provided me a forum to glimpse behind the scenes of the natural resource management machine. I've learned of the current challenges, available options and the truly varied view points with-in and outside the natural resource management machine.

Natural resource managers are faced with a genuine public concern and awareness for the global environment. Foreign exploits and markets, more efficient industries and cultural accountability are making waves which are literally shaking the fundamentals of natural resource policy and practice in America.

New Perspectives is the child born of necessity to provide feasible solutions, planning agendas, flexibility, efficiency, moreover; options. New Perspectives is an investment in: Time - a realization for long term goals. Capital - for example, Geographical Information Systems, a technological tool to provide correct answers to correct questions to better generate accountable options. Technology - experience from a variety of resources; the academic community, researchers, public, industry, cultural leaders and Forest Service managers. All forming a colloquium of diverse professionals generating the proper questions, the proper concerns and the feasible means. Dedication - born of interdependence, a realization of natural resource management's stewardship goal: sustainable management, biodiversity, multiple values and landscape ecology - the "common vision."

New Perspectives, by its virtue, would consider regional uniqueness by defining social, cultural and environmental attributes. New Perspectives is the vehicle to common ground and integration of workable models. Thus, emphasizing ecosystem condition, reflecting sensitivity to public desires and moving from quantitative to qualitative analysis.

All things considered, new Perspectives offers promise in effectively providing a means for more efficient reorganization and transformation of natural resource methodologies beneficial to the public, industry and natural resource management as a whole.

From a personal perspective, New Perspectives could encompass our nations waste management policies. Mandatory recycling and waste accountability could take the enormous amount of pressure off our dwindling natural resources. Because of the enormity of land filled waste, "finite resources" has never been defined better. Proper and timely legislation would allow industry to accommodate and adjust. Meanwhile, relief from economic pressure to develop new resources would provide useful time in better understanding ecosystem boundaries, impacts and sustainability. Also, we may better realize climatic shifts, biological interdependence and the impacts of human populations and interventions.

In closing, New Perspectives is a chance to be involved in the management of America's, and perhaps someday, the world's natural resources. Given time and dedication, New Perspectives may become the medium of exchange for information, technology and practice world wide. I would recommend that anyone in the college of natural resources become involved so as to learn and perhaps contribute to the management of our precious and beautiful, natural environment.

MARRI A. RIEDEL
NEW PERSPECTIVES IN NATURAL RESOURCES
SPRING 1991

INTRODUCTION

New perspectives. What is new perspectives? Who is involved? What does it entail? Who is responsible for it? ..And Why? These questions and many more are constantly being asked and defined by every type of natural resource manager. It is very difficult to specifically define this new perspectives mainly because new perspectives means something different to each person. To make it more difficult, it has a diverse meaning in various divisions of the Forest System (which the term was invented mainly for the Forest Service).

A few view points in new perspectives are:

*"New perspectives is a challenging paradim, a fresh look at established concepts, useful frame work for setting priorities." (Tom Barlett, Tom Hoekstra)

*New perspectives is an attitude and spirit of change(it should always be a continium). New perspectives is what we make it.(employees and public)." (Donna Hepp)

*"New perspectives is NOT a new program, not a reqquired law. New perspectives is blessed by a section of Agriculture; inhancing natural resources, recreation, technology and responding to global resources." (Jim Lyons)

*"New perspectives is population, community, ecosystem and landscape ecology." (Linda Joyce)

*"New perspectives is caring for the land and serving people."(Joe Mitchelle)

*"New perspectives is public attitude and social demand." (Joyce Berry)

*"New perspectives is a fresh look at the land and resource management methods to achieve a stewardship mission." (NATIONAL FOREST SYSTEM)

*"New perspectives is an initiative to redirect research toward societal intrests and consumer concerns." (RESEARCH BRANCH OF THE FOREST SERVICE)

*"New perspectives is a modus of including the public indecision making opportunities and involving management of natural resources, both on and off Forest Service Lands." (STATE AND PRIVATE BRANCHES OF THE FOREST SERVICE)

Concurrently, these views encompass such definitions of New Perspectives as:

1. A state of mind
2. New Methodology
3. New Philosophy
4. A new approach in making decisions.

5. A Holistic v[illegible] of managing natural resc[illegible]ces.
6. An image transformation.
7. An attepmt to involve managers and the public in forest Programs, educators and scientists.
8. A re-emphasis toward public values.
9. WHAT THE FOREST SERVICE WAS SUPPOSED TO BE DOING ALL ALONG.

(information received by Joe Mitchelle)

New perspectives is all the above and much more. The Forest Service's Motto is "CARING FOR THE LAND AND SERVING THE PEOPLE." The emphasis of this report is focused on the human aspect of the organization in specific the employees of the Forsest Service.

HISTORY OF THE FOREST SERVICE

In the past the Forest Service's work force was comprised of predominately white males. During the 1970's this makeup began to change for a variety of reasons. One was due to a court order in 1976. The Forest Service established a civil rights policy, and certain officers were numerically targeted. In 1987, the policy was re-emphasized and extended when the Forest Service put forth a direction and established goals for diversifying its work force. Since then, progress has been made by hiring minorities particularly white females, but the Forest Service is still dominated by a culture of white males. Due to this prejudice, the experiences and insights of minority group members such as females, Native American Indians, Blacks, Hispanic and people with disabilities are not well represented at the upper levels of the Forest Service. The Agency has recognized the importance in demographics and is implimenting an aggressive program in which the work force will reflect these 'minorities' by the year 2000. "The U.S. Department of Labor projects that by the year 2000 women, other minorities, and immigrants will accout for 80 percent of the U.S. labor force growth" (Joe Mitchelle).

"Other problems with the past program include white-male backlash, a sense of frustration with the Forest Service by people in under-represented groups, and difficulties un recruiting people in su ch groups with specific education and experience for jobs that are available"(USDA Forest Service).

Now that these problems are being recognized, the Forest Service has adopted and implemented several policies and programs to achieve this goal, and is thouroughly described in a report published in March 1991 entitled, "Toward a Multicultural Organization." Furthermore,in 1983, Ronald Regan issued a Federal Indian Policy policy and was reaffirmed in 1989 by President Bush and the Agency. It is aimed towards the Native Americans and Alaskan Natives. This policy was the beginnings of new relations with the Tribal Governments. In addition to the policy a program was developed entitled the Native American Educational Liaison Program. This program emphasizes education on college level for the Native American Indians.

A CLOSER LOOK AT THESE SPECIAL PROGRAMS AND POLICIES.

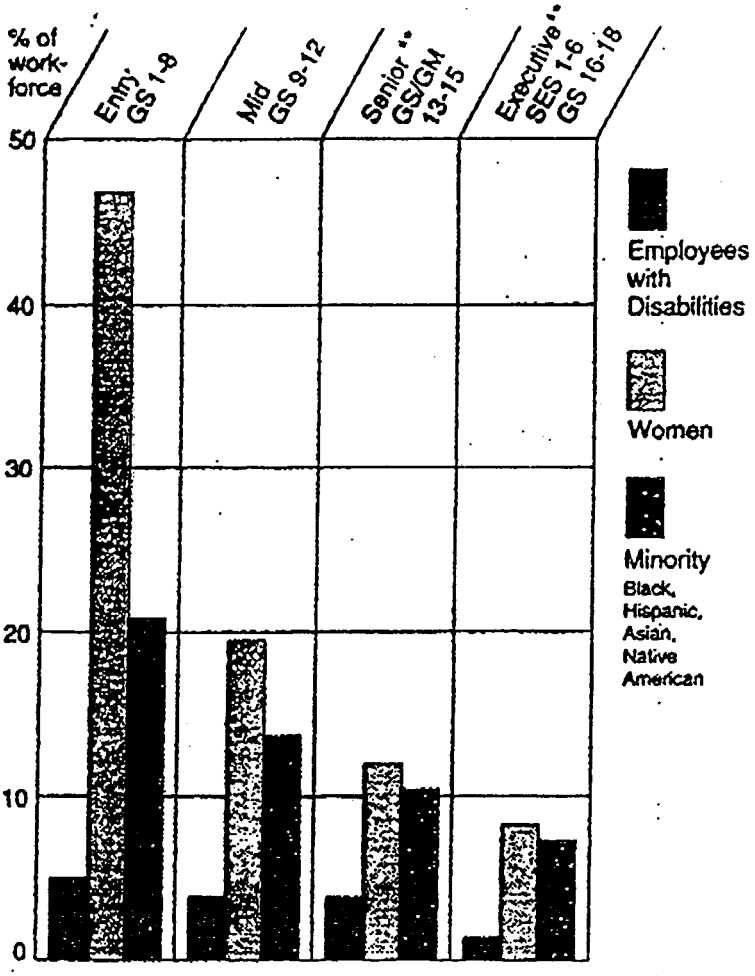
"TOWARD A MULTICULTURAL ORGANIZATION"

As previously stated this program (report) was published in March 1991. The report has three sections:the overall strategy, goals, outreach and recruitment, which the Forest Service is changing in the system. The strategy is focused on the sensitivity of the

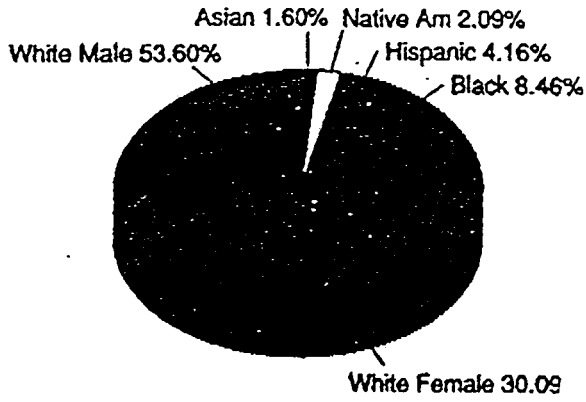
Building on Our Foundation

The demographics of the USDA work force have begun to change. Recent statistics show that the number of disabled, women and minority employees is increasing, but that these groups remain underrepresented in higher level positions.

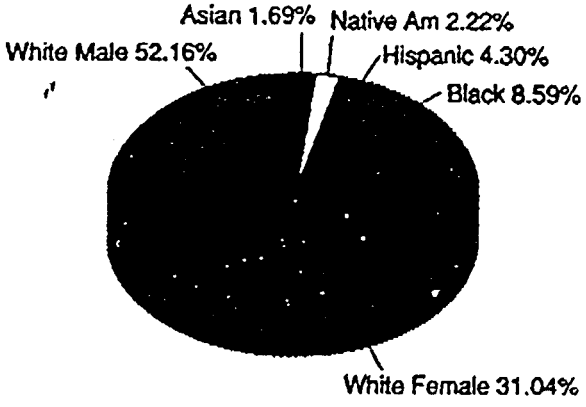
1990 USDA Work Force by Grade Groups for Women, Minorities, and Employees with Disabilities.*



USDA Work Force 1989*



USDA Work Force 1990*



Source: *USDA Work Force Diversity Tracking Reports as of 8/22/90 **Includes salary equivalents

In accordance with law, no person shall, on the grounds of race, color, national origin, sex, religion, age, disability, marital status or political affiliation, be excluded from participation in, be denied the benefit of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

,under-represented g ups. The report believes nat an emphasis in the numbers rather than people is inappropriate. Four recomendations were formed in order to transform the Forest Service into an employer of choice. The four major elements in the strategy are as followed:

I.) OVERALL STRATEGY

1. Conversion of the Forest Service into a multicultural organization.

2. Adoption of a participatory approach to supervision and leadership throughout the Forest Service.

3. Urgent pursuit of objectives.

4. A marketing approach for program design and execution.

There is a relationship to the new perspectives philosophy, which must accepted by new values and attitudes in order to succeed.

II.)GOALS

The eleven recommened are for diversification of the Forest Service work force

1. To elevate the stature of leadership devoted to human resources and the establishment of a multicultural organization.

2. To effectively recruit and to retain a multicultural work force.

3. To have an innovative, creative, people-oriented work environment for Forest Service employers.

4. To achieve community acceptance of our multicultural work force.

5. To highly value, understand, and effectively manage diversity in the Forest Service.

6. To provide outstanding support and first-line supervision to a multicultual work force.

7. To establish a national Forest Service policy that helps employees balance career and personal need in an increasingly comples society.

8. To achieve a national vision and focus for training and development of the work force.

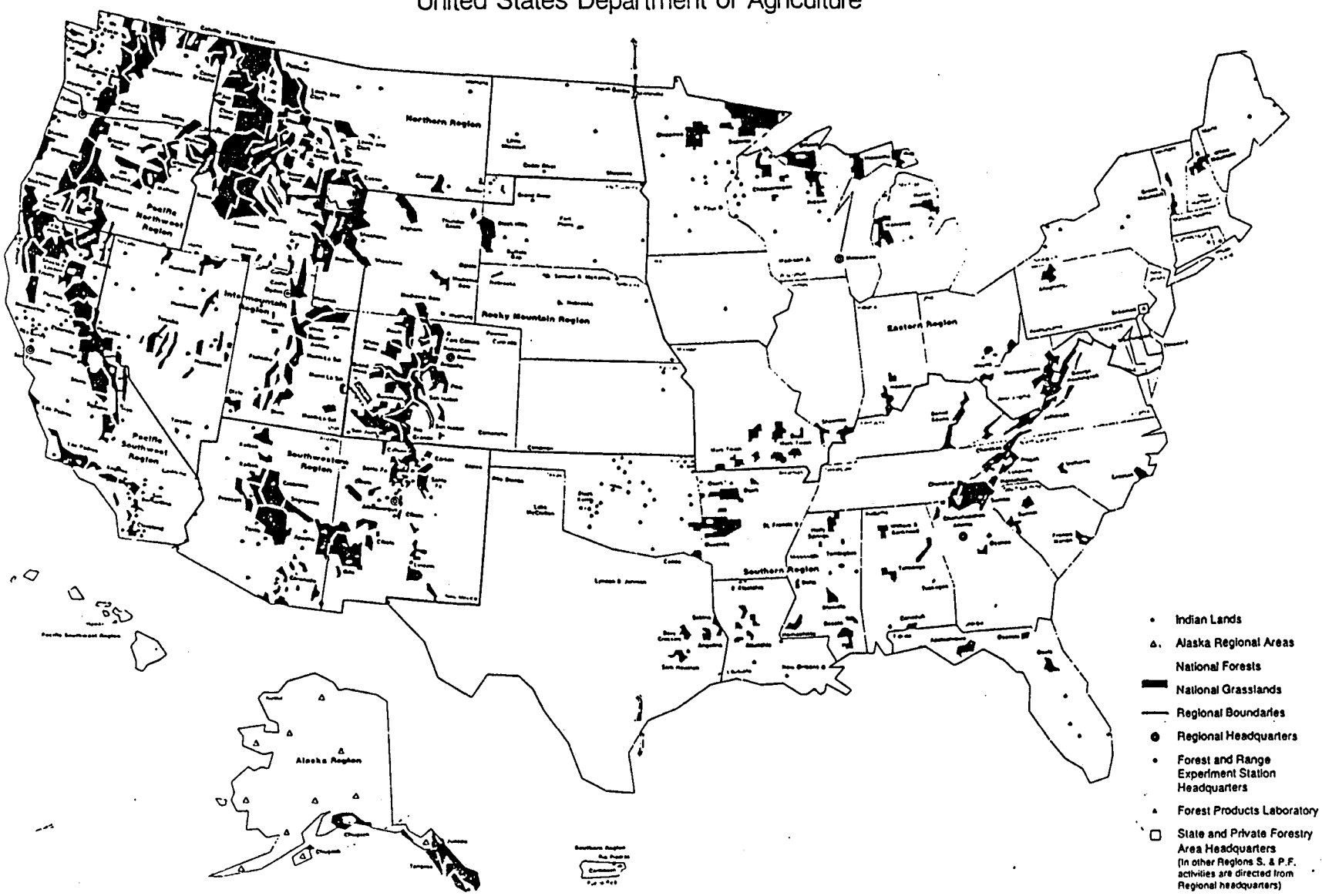
9. To have effective accountabliity for managing a multicultural organization and for diversifying the work force.

10. To clearly define Forest Service numerical targets for work force diversity in 1995 and to provide overall direction for the year 2000 and beyond.

11. To fully and appropriately recognize individuals and organizational units for the full range of multicultural accomplishments.

The Forest Service

United States Department of Agriculture



INDIAN LANDS

National Forests, Research Stations, and State & Private areas.

III.)OUTREACH AND RECRUITMENT

The goal of the outreach and recruitment is to effectively recruit and to retain a multicultural work force.

The status on the Forest Service programs for outreach and recruiting of women, minorities and diabled people are poorly coordinated and inefficient. Presently, recruiting focuses on the need of individual units rather than on Agency needs, and outreach is poorly coordinated with environmental education. The different classifications of jobs such as temporary, seasonal, and less-than-full time employees are vitally important to the Agency. They also comprise of pool experienced work-full-time positions. The multicultural balance should be sustained in this pool, and its potential should be better utilized in recruiting permanent full-time employees.

The strategies for the outreach and recruitment are as followed:

1. The Chief commissions the preparation of a national strategic plan for recruiting and outreach. This effort could be the first responsibility of the new Deputy Chief (or equivalent) for human resource programs.

2. Identifying pools of diverse candidates as soon as possible for GS-13 and higher positions. Individuals who need additional training and development to qualify for target positions should be given the needed qualifications as quickly as possible.

3. Form partnerships with other agencies and with educational, professional, and community organizations for mutual assistance in outreach and recruiting.

As previoulsy dicussed, one of the policies called "FOREST SERVICE NATIVE AMERICAN POLICY-FRIENDS AND PARTNERS" was first issued in January 1983, then reaffirmed in September 1989 by Bush. "The U.S. Department of Agriculture and the U.S. Department of the Interior entered into an Agreement in Principle in January 1988 that supports Forest Service intrests in establishing a mutual and beneficial partnership with our American Indian and Alaska Native neighbors." A brief background of these special people and objectives of the policy will be mentioned.

The Native Americans (American Indians and Alaskan Natives), are people with distinct cultures and traditional values. Most of these people live west of the Mississippi, but there are smaller tribes living in every State of the Union. Nearly 28 percent of these tribal people live on reservations, which vary in size from the 15.4 -million -acre Navajo Nation in the Southwest to the .25-acre of Golden Hill Reservation in Connecticut. Many of these reservations are adjoining to National Forest lands. Presently, there are 53 million acres of Indian lands in the United States. After the Alaska Native land sections are completed, almost 5 percent of all lands in the United States will be in Native American ownership.

The policy of the U.S. Government is to support the culture and political integrity of the Native Americans. The U.S. had entered

over 600 treaties nd agreements with the Na ′e Americans. These treaties and agreements create a legal responsiblity to the Native Americans. "The U.S. Government is obligated under these treaties and agreements to protect and maintain Native American lands, self government, resources, and traditional use areas." Congress also dictates trust responsibilities on Government agencies through statutory enactments. The Department of Interior and the Bureau of Indian Affairs have a responsibility on tribal lands, but all Federal agencies have trust obligations when carrying out laws enacted for the protection or benefit of Native Americans.

The goals and objectives of the "Native American Policy-Friends and Partners" are:

I.) Goals

1. Maitain a governmental relationship with federally recognized tribal governments.

2. Implement our programs and activities honoring Indian treaty rights and fulfill legally mandated trust responsibilities to the extent that they are determined applicable to National Forest System lands.

3. Administer programs and activities to address and be sensitive to traditional native religious beliefs and practices.

4. Provide research, transfer of technology, and technical assistence to Indian governments.

These goals and objectives will maitain the friendship and create a new dynamic partnership in matters of the mutural intrests in natural resource management.

In correlation with the "Frienship and Partners Policy", an educational program was developed to enhance the Native Americans. The Native American Educational Liaison Pilot Program was designed to help Native American Colleges develop graduates with skills in natural resource management and science. This program was inspired by Ardell Bjugstad who served as the Project Leader for Research at the Forestry Sciences Laboratory in Rapid City, South Dakota. The program was developed partly in response to the agency's 4th Native American Policy Point, which required the Forest Service to develop research and environmental programs in order to meet Native American's objectives. For example extending various agency programs to tribal governments, exchanging and sharing technical staffs and skills. The Pilot Program was developed in a combined effort from the U.S. Forest Service, Washington D.C. headquarters, the Rocky Mountain Forest and Range Experiment Station and Rocky Mountain Region (R-2). The objectives of this program are as followed:

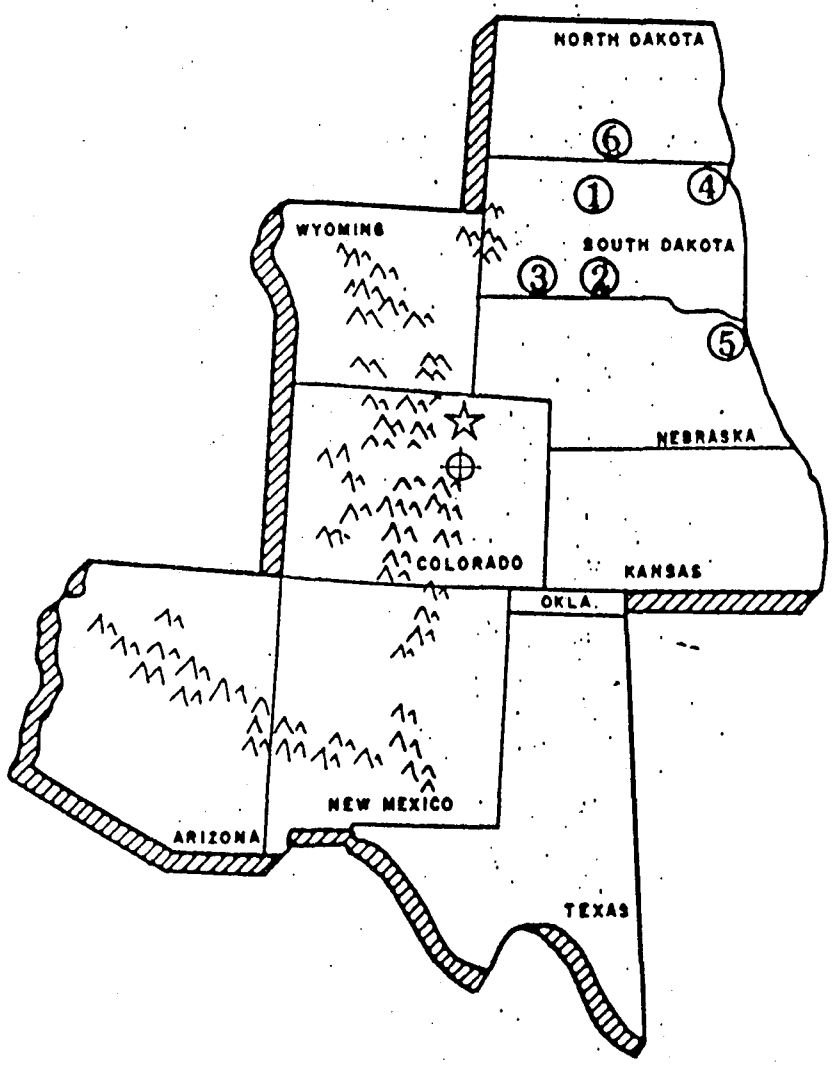
I.) Objectives

The objectives for the Pilot Program are as followed:

1. Provide assistance, guidance and technical expertise to selected tribal community colleges in establishing, developing and stregthening new and existing programs of study concerning on natural resources.

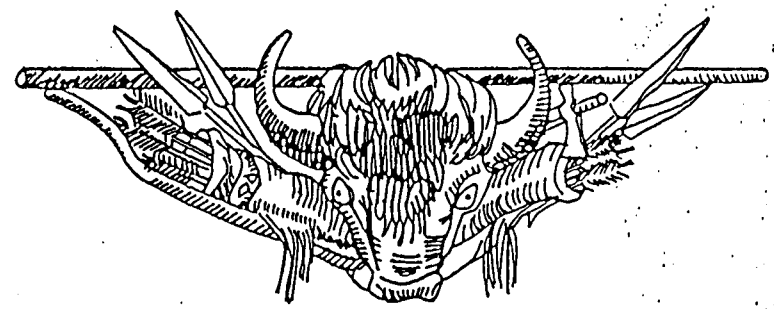
LOT PROGRAM"

○ PARTICIPATING COLLEGES
☆ ROCKY MOUNTAIN STATION
⊕ REGION 2



PARTICIPATING COLLEGES

1. Oglala Lakota College
   Kyle, South Dakota
2. Sinte Gleska Community College
   Rosebud, South Dakota
3. Cheyenne River Community College
   Eagle Butte, South Dakota
4. Sisseton Wahpeton Community College
   Sisseton, South Dakota
5. Nebraska Indian Community College
   Winnebago, Nebraska
6. Standing Rock College
   Fort Yates, North Dakota



FOREST SERVICE PARTICIPANTS

Rocky Mountain Station
Region 2
Washington, D.C. Office

Assist in the enactment of appropriate Articulation Agreements
2. ~~Assist with enactment of appropriate Articulative Agreements~~ (transfer of equivalent courses) between cooperating tribal communities by colleges and non-tribal colleges and universities with departments of natural resources.

3. Convey information on Forest Service programs and employment oppurtinities to student and tribal entities. Consel students in appropriate academic preparation, assit Forest Service with student recruitment, and assist tribal colleges with student placement.

4. Provide expertise and guidance to tribal and non-tribal college and university committees, faculty, staff, and students in developing agricultural and natural resource programs.

5. Serve as liaison between selected Native American colleges, Rocky Mountain Forest and Range Mountain Region in coordinating and developing programs of mutual intrest.

6. Plan and participate in workshops, demonstrations, career days, field trips, tours, and special events with colleges and universities. This would involve participation from the faculty, staff, students, Forest Service, state and local agency personnel.

7. Emphasize a greater need for research in areas of small scale and alternative agriculture in order to effectively provide appropriate technology while transfering to Native American communities. Link Forest Service Research, State and Private Forestry, and National Forest Systems technology transfer capabilities to tribal demonstation and pilot projects.

CONCLUSION

Overall, new perspectives has a different meaning to each person. But one definition we all agree on, is that New Perspectives is a Forest Service Program which should be working with and for the people(in this case the employees). As previoulsy stated, the Forest Service and the government are working together with special programs and policies in order to mold the working force into a more multicultural atmosphere. This quote from Chief Seattle,in 1852, summerizes the importance of man and his relationship with the earth's natural resources; (whether it be man, woman, Native American, Black or a disabled person). "...This we know: The earth does not belong to man, man belongs to the earth. All things are connected like the blood that unites us all: man did not weave the web of life, he is merely a strand in it. Whatever he does to the web he does to himself..."

(the objectives and goals were obtained from the actual phamphlets)

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A Critical Review of the New Perspectives Concept. Reactions to the NR492 Presentations.

Submitted by:
Michael A. Tarrant

In fulfillment of Course requirements
NR 492
New Perspectives in Natural Resource Management.

A Critical Review of the New Perspectives Concept.

Reactions to the NR492 Presentations.

Throughout the semester, a number of speakers have presented their interpretation of, and position, regarding the "New Perspectives" phenomenon. A variety of opinions have been proposed and explored. In addition, the contribution of new perspectives to the Forest Service, and its speculated impacts upon the public, and society in general, have been examined. The purpose of this paper is to review some of these approaches; and, based upon some of the conclusions drawn, to advance yet another persuasion to the meaning of new perspectives.

Any discussion dealing with the topic of new perspectives could be forgiven for basing it's introduction upon a battery of questions. What is new perspectives? Why has it come about? What does it entail? What are the repercussions of adopting its objectives?; etc. Raising these questions represents a fundamental step toward developing an understanding of the phenomenon at hand. However, two further questions remain. First, to what extent have these questions been formally addressed and answered? And second, have they promoted acceptance of the need for restructuring within the Forest Service?

The seminars began with a video of Hal Salwasser questioning the role of stewardship governing the maintenance and development of today's public lands. He proposed a conceptual framework of

new perspectives premised upon the four principles of "sustainability", "participation", "integration", and "collaboration". New perspectives was viewed as a system for dealing with the social and internal changes currently faced by the Forest Service. Aspects of technological demands and operationalization of the new perspective objectives, as well as the types of barriers to be overcome, were also addressed.

A report of the university colloquia indicated a number of misconceptions and goals pertaining to new perspectives. Like Salwasser, new perspectives was considered a reaction to changes in society; and one that required emphasis upon the goals of multiple values, ecosystem sustainability, biodiversity, long-term productivity, and landscape esthetics. In this context, the challenge for new perspectives was much broader than the concepts of "new forestry" or "landscape ecology". The fundamental question was a concern not for what is being taken from the land, but for what is being left.

Regional Forester, Gary Cargill echoed much of what had been mentioned in previous sessions, recognizing new perspectives as a management "attitude". He did however, advance the notion by proposing that new perspectives be the governing "philosophy" guiding future Forest Service plans.

District Ranger, Donna Hepp, met the challenge of new perspectives by focusing on a number of prominent issues facing the Forest Service, namely: ecosystem stewardship, urban interface, recreation management and timber management. She gave

illustrations of how new perspectives could be applied to a variety of problems. Examples included, the establishment of a Forest Service advisory committee to provide unfiltered information from the ground level to the supervisory staff; the development of public forums, and the need for project planning with the community's interest at heart.

Joe Berry of the Department of Natural Resources, presented the application of GIS to new perspectives. By employing an interpretation of new perspectives as a model for interaction and integration, it was suggested that GIS should become an integral measurement technique for data gathering, forecasting and planning within the Forest Service.

Jim Lyons, Senior Staff Assistant with the House Committee on Agriculture, questioned the extent to which new perspectives differed from the legal mandates of the Forest Service of multiple-use and sustained yield. He adopted the approach that new perspectives was essentially a public relations exercise via which the Forest Service could formally acknowledge their limited achievement in the areas of biodiversity, and multiple-use. Two important issues were raised but left unanswered. First, how practical is integration of new perspectives, particularly at the field level. Second, how successful would new perspectives be regarding creation of job opportunities and job losses, cost, and effect on timber sales.

Hank Montrey, Director of the Rocky Mountain Forest and Range Experiment Station, forwarded the notion of new

perspectives as a framework for communication. He recognized the challenge of new perspectives as an opportunity to recreate the common ground, or "harmonize", Forest Service actions externally as well as internally. The importance of integrating three aspects within the new perspectives approach were emphasized: a productive aspect, a multiple-use aspect, and a ecological (sustainability) aspect.

Evan Vlachos, Professor of Sociology offered a perspective of "new paradigms" based on the concepts of social change. New paradigms was viewed as a response to the internal problems and external pressures facing the Forest Service. Harmony was a related theme in Vlachos' presentation, this time focusing on the relationship between the human and physical resources. In his model of change, Vlachos proposed that the challenge of new paradigms, and therefore the challenge for the Forest Service, was to address three key issues. First, a conceptual issue, concerned with the management of social complexity and turbulence. Second, to modify and refine research methods, incorporating a multidimensional value structure. Third, an emphasis on organizational change, encouraging proactive thinking and conflict resolution. He suggested that this model of change needed to be considered within a social framework relating three key components: legal mandates, professional standards, and public desires. Vlachos did not propose any concrete examples of how new paradigms could be applied at the ground level but did acknowledge two factors pertinent to its successful integration

within the Forest Service. First, the need to resolve cognitive, stakeholder and ideological conflicts, that currently add to the problems facing the Service. Second, the need to practice a "democracy of restraint, rather than face the tyranny of constraint".

To summarize, it seems apparent that new perspectives means different things to different people. Even so, a number of emerging themes are clearly visible from all the presentations. New perspectives is:

1. a response to pressures that are external and/or internal in origin;
2. focused toward harmony and conflict resolution;
3. inherently concerned with the concepts of multiple-use and sustained yield; and,
4. an attempt to direct change within the Forest Service.

Given these ideas, is there anything new we can say about new perspectives? Perhaps the greatest challenge lies in the need to reiterate and emphasize some values that have already been raised, yet in a slightly different context. My notion of new perspectives is that it is essentially the call for a change in behavior or attitude. This new attitude requires development of an understanding about integrating both physical/ biological and social values. Appreciating and incorporating traditional and new standards, employing personnel trained in a variety of disciplines, as well as adopting a cross-disciplinary approach to research, offers a fresh way of problem identification and

ultimately problem resolution in the Forest Service. New perspectives is not the change itself but merely the transitional period during which the Agency has the opportunity to consciously and deliberately undergo the changes necessary to manage the public's lands. This kind of stewardship, relies upon the need to reallocate its resources toward multiple values, particularly non-consumptive aspects of the public domain.

The question remains, however, as to whether the Forest Service, and the new perspectives concept, will be quick enough to aspire to the ever changing, but increasingly environmental, public demands?

SEMINAR

NEW PERSPECTIVES IN NATURAL RESOURCES MANAGEMENT

Dr. Tom Bartlett

Term Paper Assignment

by Jeffrey W Moore

524-27-3420

Interpretations and Observations

on the Concept of New Perspectives

What is New Perspectives? These were the first words spoken by almost every guest lecturer in the colloquium! And then, most went on to describe the concept in a wide variety of ways. Thus it seems that New Perspectives is just that- A Concept. In fact, much of the present day terminology in Natural Resources disciplines and legislation are also little more than concepts. Notions such as Old Growth, Biodiversity, Ecosystem and Landscape Ecology, etc., are ambiguous and subjective. Therefore, they are almost impossible to measure or evaluate let alone implement. And yet, we are forced to implement these concepts! Can this be accomplished in the real world, and if so how?

First of all, in order to implement something we must know what it is. So let's see if we can't better define New Perspectives. Everyone pretty much agreed that it is an "attitude" or an "ethic". This definition is hazy at best. So in order to make it more clear, we should look at the goals of this ethic called New Perspectives. It seems to me that it is an integration of several ideas including ecosystem sustainability, biodiversity, landscape aesthetics, long term productivity, multiple values (rather than just the economic value of timber), alternative viewpoints, and sensitivity to public desires. Since most of these concepts have been included in Forest Service planning for some time, it must be the increased emphasis on these ideas in the

planning process that has really changed. Because the Forest Service has become a huge bureaucracy, complete with a system of checks and balances to keep hasty decisions from becoming policy, it contains considerable forces of inertia which can slow new management approaches to a snail's pace. New discoveries, developments, and innovative concepts can be lost in the internal quagmire of red tape. Our pool of knowledge grows at an ever increasing rate, and actual management practices are falling more and more behind. There is a great need to remove some of these bureaucratic shackles in order to keep pace with new developments.

This also dictates that New Perspectives cannot be legislated as such, because each stand in each forest is unique. Therefore, the emphasis on each goal will change with space and with time. It seems to me that the only way for New Perspectives to become an integral part of the planning process, is for it to become an integral part of each manager's own personal philosophy, complete with the power to implement these ideas independently of washington superiors. When these new approaches are successful, the manager should be recognized and rewarded, not penalized because they "didn't get the cut out". A critical part of this reward system should be the establishment of a working relationship with different special interest groups and the general public. The bottom line is that we are people managers even more than resource managers.

Because New Perspectives is so hazy and unmeasurable, it cannot be dictated or legislated. Also, because we would not then have the luxury of being legislated by congress, economics must be

dealt with in the free market system. When all of these other goals of New Perspectives are given serious consideration, it becomes increasingly difficult and expensive for management and extraction of such things as timber. This is reasonable because we should have to pay the "real" price for our timber products. But, what really complicates things is that we are the only country, at least in this hemisphere, that realizes this. The United States imports billions of board feet of timber every year from Canada and elsewhere. These places are willing to clear-cut massive areas at a time, and have never heard of such things as Environmental Impact Statements, or Sustained Yield. Furthermore, because the public is usually ignorant about these issues, it often makes it impossible for us to compete in the marketplace even with "below-cost sales subsidized by the Government". Additionally, our domestic timber industry will most likely become insolvent and our already staggering trade deficit will widen evermore.

The best alternative would be for these other countries to realize the "true costs" of their actions and so these other more threatened ecosystems would benefit. This would also increase the price of timber and drive the domestic demand down to a more realistic level. Unfortunately, timber harvesting practices in other countries is unlikely to change. Such exportation is a real boon to their economies which are much more dependant on their timber industries. One thing that could really enhance more ecologically sensitive timber practices across this hemisphere would be a ban on all timber imports which are not accompanied by a verified, sound, silvicultural regime and an environmental impact

statement.

The world marketplace does not work unless everyone plays by the same rules. This solution is probably too simplistic to salve such a problem, but it would be worth a try. New Perspectives is a truly wonderful concept whose time has come. I just hope we can leap this economic hurdle before the "race" is already lost!

TERM PAPER

THE FOREST SERVICE PATH TO NEW PERSPECTIVES

Submitted by
DENISE NEWBERRY

In partial fulfillment of the requirements for
NR 492, New Perspectives
Colorado State University
Fort Collins, Colorado
Spring, 1991

To me, this is exciting, having the opportunity to share my views of "New Perspectives", what it may be and means to people at the "doing" level, such as our speakers. I gathered from each lecture that many speakers had already involved themselves in unique projects that have taken a totally different path than similar projects of their past. Why did they do that? Did they do it because their new view of the world, its science and social values, indicated a need for a change to a better way? But as with the first class, I am still wondering and sorting out the meaning and value, if any, of "New Perspectives".

During the semester I have heard the following: Timber - "New Forestry", State and Private - "Stewardship program", "The National Recreation Strategy", and "Rise to the Future". To me these are functional responses to change brought on by a refocus of time, energy and money on issues. I see that the Forest Service is trying to change the course of its direction in many areas, These changes to me, seem to be a direct response to new information and the many changing expectations and fears of the American people.

After listening to the many speakers, the feeling that was conveyed is that the Forest Service is an agency in transition. All speakers reaffirmed the agency's foundation in sustainable, multiple-use management. But they have also said that the future of multiple-use is different that the past. Some felt it will feature a better balance among resource uses and values and will be carried out with greater

environmental sensitivity. It seems like a large shift from sustain yield to ecosystem sustainability. It could be a rough road ahead and a slow moving one from an economic, production orientation to a more quality, healthy diverse focus. But I'm still wondering what is "New Perspectives", where did it come from and who does it apply to?

I think Nancy Graybeal's opening remarks from the June 1990 Workshop on New Perspectives gives some good guideline principles. New Perspectives is not just innovative silviculture - it is a total philosophy of forest management driven by five essential principles:

1. *People and their cultures and economies are integral parts of ecosystems.*
2. *The sustainability of ecosystems is a better measure of the legacy we leave than our ASQ track record or our track record with individual wildlife species.*
3. *What we leave behind on the land - the biological legacy - is as important as what we plan to remove for our use.*
4. *People from all interests and walks, not just foresters or ecologists or biologists, will shape what New Perspectives eventually becomes.*
5. *The best scientific thought will be evident in all that it becomes.*

So what will it take from the Forest Service?? What it always takes... Lots of work and courage!!

The themes that will guide every Forest Service program and plan through the 1990's are the following:

1. *Enhance recreation, fisheries, and wildlife resources in full partnership with those who benefit from these resources;*
2. *Assure that all resource management activities are carried out in an environmentally sensitive manner, with special attention to protection of soils, water, air quality, and biological diversity;*
3. *Improve scientific knowledge about natural resources and ecosystems, especially their social and biological relationships; and*
4. *Address global resource issues.*

Well so much for new directions and the Forest Service perspective on sustainability. At this point I'm just wondering how they will get all this new stuff on the ground where it counts? I didn't really hear too many speakers commenting on how anything may fit with the Forest Plans, "such as global change and biological diversity. I feel the Forest Service employees have no idea if "New Perspectives" is a philosophy, a program, management direction or what? and the general public has no idea what is going on with the agency.

I don't know!, I've listened to the speakers this semester and have tried to untangle what it was they were saying. I see "New Perspectives" being focused on several of the current challenges on ecological sustainability, such as biological

diversity, old-growth forests, resource harvest methods, timber supplies, and environmentally sensitive energy development. Hal Salwasser is concerned about being caught "in the crossfire", he should be, the Forest Service needs to get together and reaffirm the philosophy that the National Forest and Grasslands should provide products and services that are needed by the American people, but with a difference.

A plus for the "New Perspectives" program is what Donna Hepp spoke about and that is for matching users and partnerships with opportunities and emphasizing efforts that will result in providing high levels of customer satisfaction. She said her emphasis will be placed on managing uses to retain and enhance wilderness character. This will call for education and new research on management systems that deal with wilderness ecosystems. Donna has seen her expanding program resulting in increased budgets for the agency in some areas yet many of the emphases can be carried out with existing budget resources. She sees her districts task as one of using recreation as a theme and increase the quality and diversity of resource outputs and values in a balance manner; in other words to be environmentally sensitive while doing this and economically efficient.

I felt that Joe Mitchell, "A Native American's View" had the most informative talk and really seemed to be organized on his thoughts and program objectives dealing with "New Perspectives". He sees all of the parts not just his own and seems

to incorporate and blend the sciences, management and public participation into his decision --- and that to me is truly a way to gain "New Perspectives".